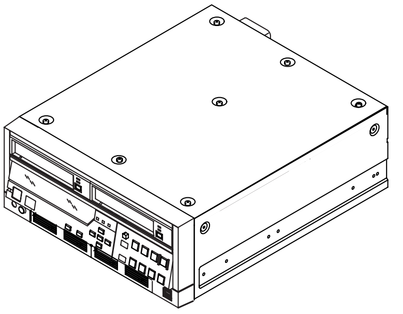
Pioneer sound.vision.soul

Service Manual


PRV-LX10

ORDER NO.
RRV3069

DVD RECORDER

PRV-LX10

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PRV-LX10	WYV/RB	AC220- 240V	

- **Before returning the repaired product to the user, be sure to upgrade the firmware to its latest version.**

For details, refer to "Important Check Points for good Servicing".

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SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

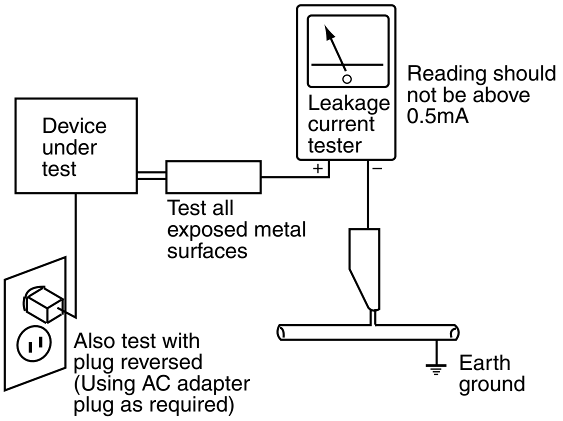
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
+
–
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

IMPORTANT

THIS PIONEER APPARATUS CONTAINS INVISIBLE LASER OF CLASS 3b and VISIBLE LASER OF CLASS 2.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS

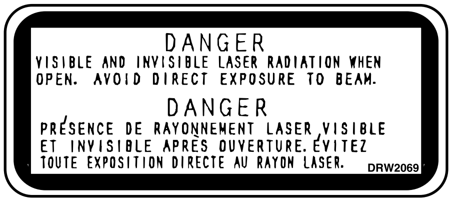
MAXIMUM OUTPUT POWER: 25 mW
WAVELENGTH: 654 - 662 nm

LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 36 mW
WAVELENGTH: 780 - 787 nm

LABEL CHECK

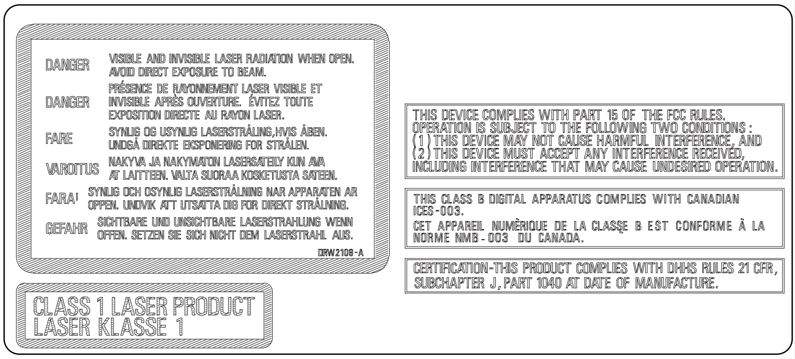
DRIVE Assy LX1



DANGER
VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
DANGER
PRÉSENCE DE RAYONNEMENT LASER VISIBLE ET INVISIBLE APRÈS OUVERTURE. ÉVITEZ TOUTE EXPOSITION DIRECTE AU RAYON LASER.
DRW2069

(DRW2069)

Note: You will see one of the following two labels attached.



DANGER VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
DANGER PRÉSENCE DE RAYONNEMENT LASER VISIBLE ET INVISIBLE APRÈS OUVERTURE. ÉVITEZ TOUTE EXPOSITION DIRECTE AU RAYON LASER.
FARE SYNLIG OG USYNLIG LASERSTRÅLING,HVIS ÅBEN. UNDGÅ DIREKTE EKSPONERING FOR STRÅLEN.
VAROITUS NAKYVA JA NAKYMATON LASERSATEILY KUN AVA AT LAITTEEN. VALTA SUORAA KOSKETUSTA SATEEN.
FARA! SYNLIG OCH OSYNLIG LASERSTRÅLNING NAR APPARATEN AR OPPEN. UNDVIK ATT UTSATTA DIG FOR DIREKT STRÅLNING.
GEFAHR SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN OFFEN. SETZEN SIE SICH NICHT DEM LASERSTRAHL AUS.
DRW2109-A

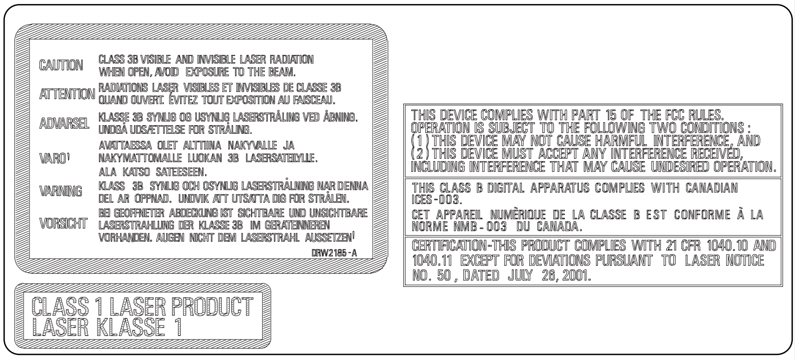
CLASS 1 LASER PRODUCT
LASER KLASSE 1

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS :
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.
CET APPAREIL NUMÈRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.

CERTIFICATION-THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR, SUBCHAPTER J, PART 1040 AT DATE OF MANUFACTURE.

(DRW2109)



CAUTION CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO THE BEAM.
ATTENTION RADIATIONS LASER VISIBLES ET INVISIBLES DE CLASSE 3B QUAND OUVERT. ÉVITEZ TOUT EXPOSITION AU FAISCEAU.
ADVARSEL KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO! AVATTAESSA OLET ALTTIINA NAKYVALLE JA NAKYMATTOMALLE LUOKAN 3B LASERSATEILYLLE. ALA KATSO SATEESEEN.
VARNING KLASS 3B SYNLIG OCH OSYNLIG LASERSTRÅLNING NAR DENNA DEL AR OPPNAD. UNDVIK ATT UTSATTA DIG FOR STRÅLEN.
VORSICHT BEI GEOFFNETER ABDECKUNG IST SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG DER KLASSE 3B IM GERATEINNEREN VORHANDEN. AUGEN NICHT DEM LASERSTRAHL AUSSETZEN!
DRW2185-A

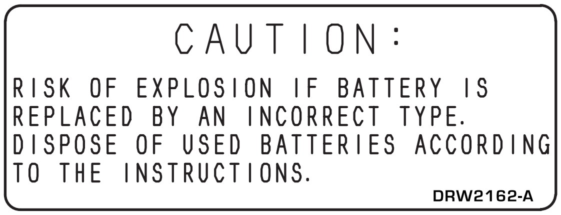
CLASS 1 LASER PRODUCT
LASER KLASSE 1

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS :
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.
CET APPAREIL NUMÈRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.

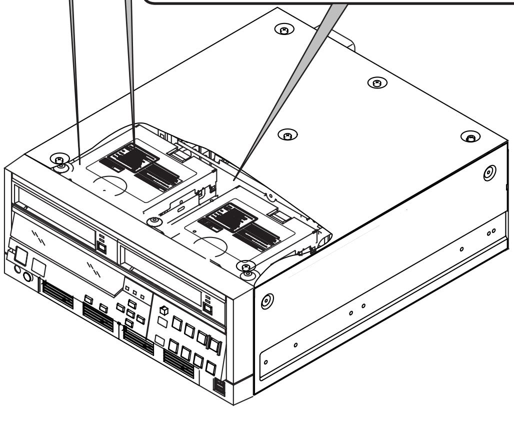
CERTIFICATION-THIS PRODUCT COMPLIES WITH 21 CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JULY 26, 2001.

(DRW2185)



CAUTION:
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
DRW2162-A

(DRW2162)



LITHIUM BATTERY NOTICE

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

When replacing the lithium batteries, follow the note below. Dispose of the used battery promptly. Keep away from children. Do not disassemble and do not dispose of in fire.
The battery used in this device may present a fire or chemical hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate. Replace only with the same Part Number. Use of another battery may present a risk of fire or explosion.

Note : The lithium battery installation position is shown in the exploded views.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety

Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments

To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts

Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning

For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws

To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

• Recordable discs

Logo	Attributes
DVD-RW	12cm, single-sided, single layer disc Approx. max. recording time: 360 minutes (4.7GB)
DVD-R	12cm, double-sided, single layer disc Approx. max. recording time: 720 minutes (9.4GB)

∗ This unit does not support use of 8 cm DVD-R discs.

- CD-R/CD-RW discs cannot be recorded on this unit.

• Playback only discs

Logo
DVD video

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1. SPECIFICATIONS

1.1 SPECIFICATIONS CHECKS

■ Test Specifications

- Conditions and connections for the test
- Conditions for the test

Power voltage: PRV-LX10/WYV/RB: 220- 240V±10% AC, 50/60 Hz

Power consumption: PRV-LX10/WYV/RB: 1A max. when all optional accessories are mounted

Ambient temperature: 5-35°C, relative humidity: 85% or less

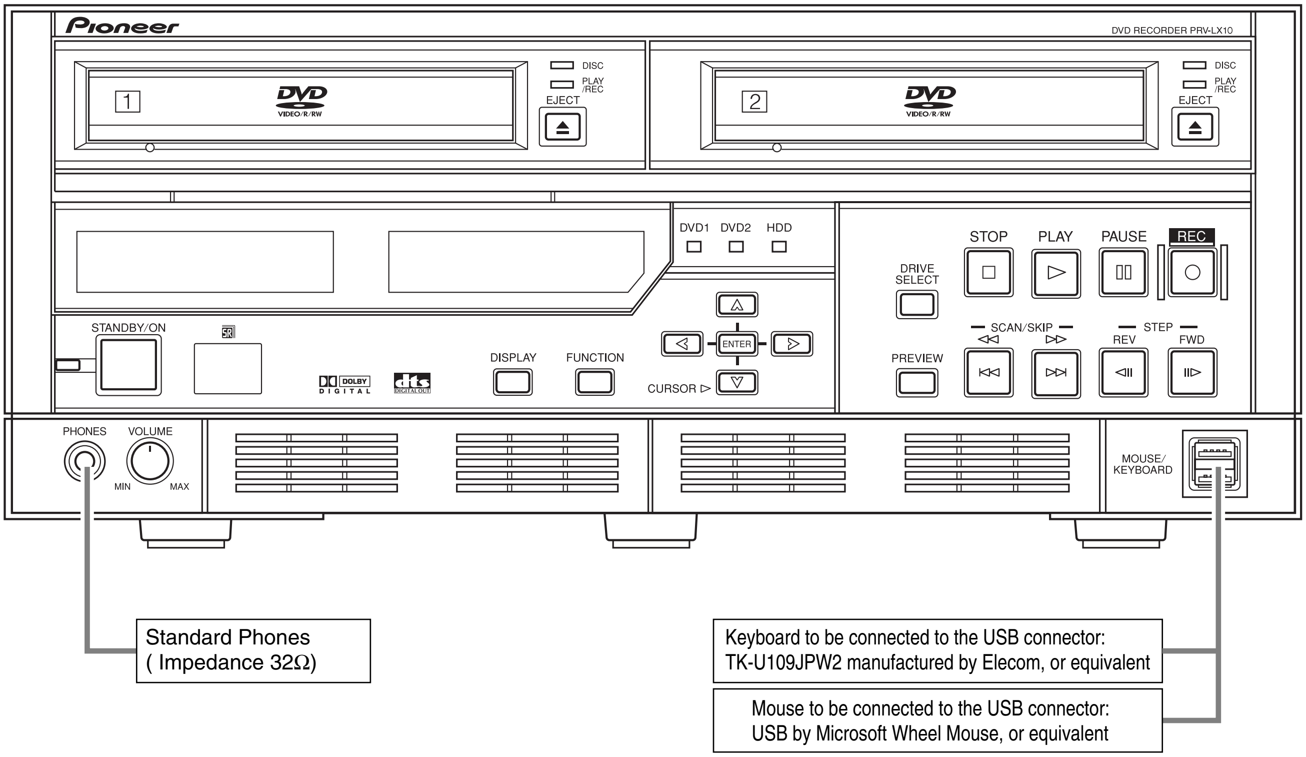
Note: Because the HDD is mounted on the unit, be sure not to impart shock or vibration to the unit while it is operating.

- **Recommended media**

For the test of the unit, use the following recommended media:

DVD-R: (GGV1139)
DVD-RW: (GGV1050)

- Conditions diagram
- Front panel section



Pioneer
DVD RECORDER PRV-LX10
1
2
DVD VIDEO/R/RW
DISC
PLAY /REC
EJECT
DVD1 DVD2 HDD
STOP
PLAY
PAUSE
REC
DRIVE SELECT
PREVIEW
SCAN/SKIP
STEP
REV
FWD
STANDBY/ON
DISPLAY
FUNCTION
ENTER
CURSOR
DOLBY DIGITAL
dts DIGITAL OUT
PHONES
VOLUME
MIN
MAX
MOUSE/ KEYBOARD

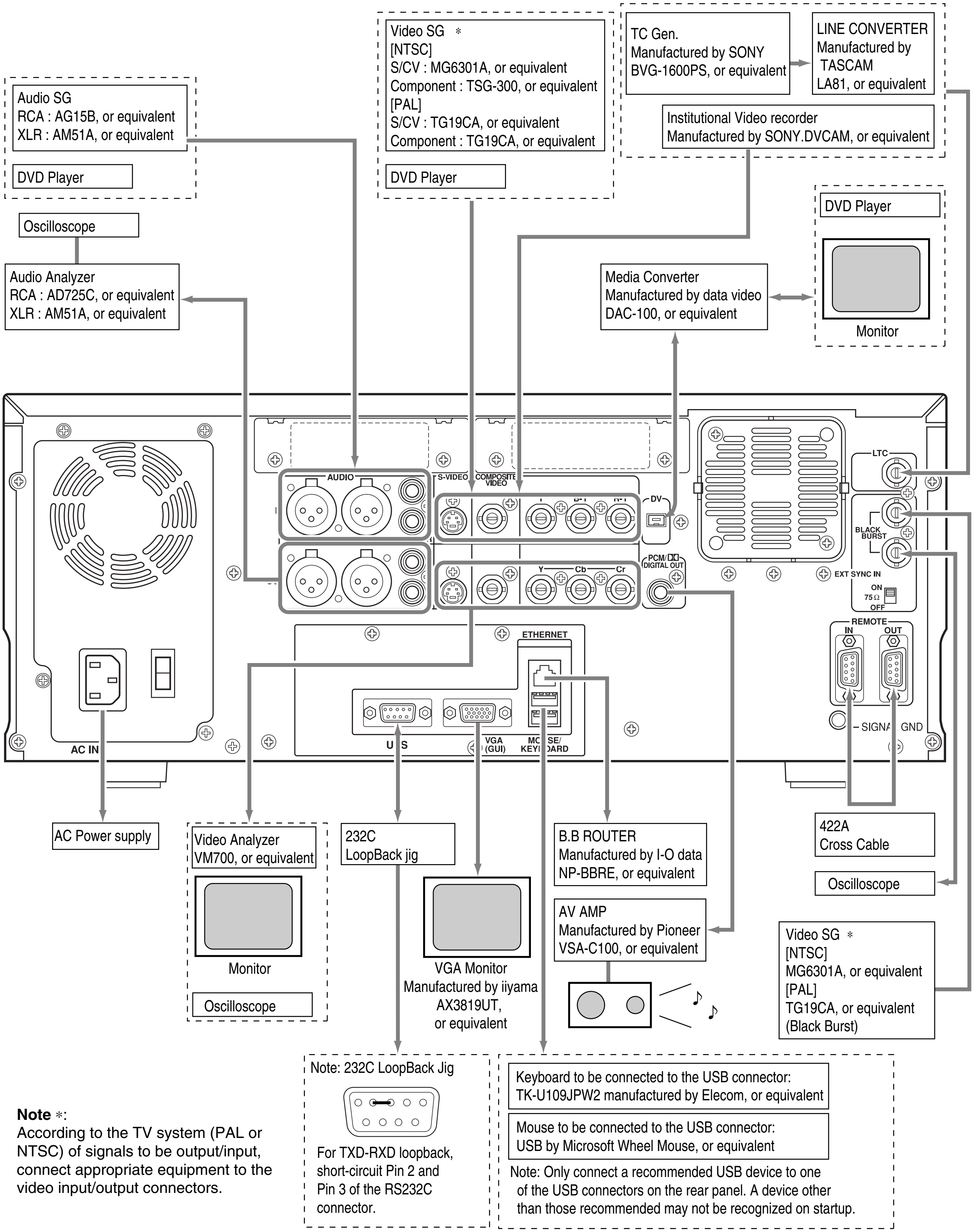
Standard Phones
(Impedance 32Ω)

Keyboard to be connected to the USB connector:
TK-U109JPW2 manufactured by Elecom, or equivalent

Mouse to be connected to the USB connector:
USB by Microsoft Wheel Mouse, or equivalent

• Rear Panel section

[The connection figure of measuring instruments]


Video SG *
[NTSC]
S/CV : MG6301A, or equivalent
Component : TSG-300, or equivalent
[PAL]
S/CV : TG19CA, or equivalent
Component : TG19CA, or equivalent
DVD Player
TC Gen.
Manufactured by SONY
BVG-1600PS, or equivalent
LINE CONVERTER
Manufactured by
TASCAM
LA81, or equivalent
Institutional Video recorder
Manufactured by SONY.DVCAM, or equivalent
Audio SG
RCA : AG15B, or equivalent
XLR : AM51A, or equivalent
DVD Player
Oscilloscope
Audio Analyzer
RCA : AD725C, or equivalent
XLR : AM51A, or equivalent
DVD Player
Media Converter
Manufactured by data video
DAC-100, or equivalent
Monitor
AUDIO
S-VIDEO
COMPOSITE VIDEO
Y
B-Y
R-Y
DV
Cb
Cr
PCM/DIGITAL OUT
LTC
BLACK BURST
EXT SYNC IN
ON
75Ω
OFF
REMOTE
IN
OUT
SIGNAL GND
ETHERNET
USB
VGA (GUI)
MOUSE/KEYBOARD
AC IN
AC Power supply
Video Analyzer
VM700, or equivalent
Monitor
Oscilloscope
232C
LoopBack jig
VGA Monitor
Manufactured by iiyama
AX3819UT,
or equivalent
B.B ROUTER
Manufactured by I-O data
NP-BBRE, or equivalent
AV AMP
Manufactured by Pioneer
VSA-C100, or equivalent
422A
Cross Cable
Oscilloscope
Video SG *
[NTSC]
MG6301A, or equivalent
[PAL]
TG19CA, or equivalent
(Black Burst)
Note: 232C LoopBack Jig

For TXD-RXD loopback, short-circuit Pin 2 and Pin 3 of the RS232C connector.

Keyboard to be connected to the USB connector:
TK-U109JPW2 manufactured by Elecom, or equivalent

Mouse to be connected to the USB connector:
USB by Microsoft Wheel Mouse, or equivalent

Note: Only connect a recommended USB device to one of the USB connectors on the rear panel. A device other than those recommended may not be recognized on startup.

Note *:
According to the TV system (PAL or NTSC) of signals to be output/input, connect appropriate equipment to the video input/output connectors.

1.2 FUNCTION MENU

■Function Menu Prestore (reference)

Menu item				Setting
EDIT	DVD Menu	Menu Setting	Menu Edit To	hyymmdd_xx
			Menu TV System	PAL
		Menu Type / Font	Menu Type	Title Menu
			Font	Helvetica
		Menu Design	Design Select	Type A
			Thumbnail	Go to Video
			Button Text	Number
		Menu Modification	Background	Default
			Image	Default
			Disc Name	(Blank)
			Select Color	Default
			Active Color	Default
		Navigation Cmd	Introduction Clip	Disabled
			First Play PGC	Stop
			Title Post Cmd	Stop
		Del/Init Library	Type	Background
			Design Select	BG2.bmp
	Project	Record Name	Name	hyymmdd_xx
			Protect	Disabled
			Record To	HDD
			Num of Clips	0
			Num of Titles	0
			Last Modified Date	yyyy.mm.dd hh:mm:ss
			Total Capacity	0 MB
		Copy Project	Copy To	cx_hyymmdd_xx
		Copy Clip	Source Drive	HDD
			Copy From	No Item
			Clip	No Item
		Delete	Delete	No Item
	DVD Disc	Make Disc	Target	DVD 1
		Image	Target Image	hyymmdd_xx.img
APP	Auto Capture	IN/OUT Point	Preroll Time	5 Seconds
			Offsest(Frame)	-17 Frames
			Record As	Title(Stop)
			IN/OUT Point	00:00:00:00
		Chapter Point	Chapter Point	00:00:00:00
		EDL Command	Command	Finalize
		EDL	No Item	(Blank)
		EDL Load/Delete	Load	No Item
			Delete	No Item
		EDL Save	Save To	edl000.edl
	Copy/Impt/Bku	Disc Image Copy	Source	DVD 1
			Input Image Name	disc00000.img
		Image Copy/Del	Source Image	No Item
			Destination	DVD 1
		Menu Import	Type	Background
			Source	Import Directory
			Source File	No Item
		EDL Import	Source	Import Directory
			Source File	No Item

Menu item				Setting
SET UP	System	System Settings	Keyboard	English(GB)
			Key Repeat Speed	Medium
			Mouse	Generic
			Mouse Speed	Medium
			Time Zone	London
			Date(mm/dd/yyyy)	mm/dd/yyyy
			Time(hh:mm:ss)	hh:mm:ss
		F-Key Set 1 - 6	F-Key Enable	F-Key Only
			F1	Not Set
			F2	Not Set
			F3	Not Set
			F4	Not Set
			F5	Not Set
			F6	Not Set
		F-Key Set 7 - 12	F7	Not Set
			F8	Not Set
			F9	Not Set
			F10	Not Set
			F11	Not Set
			F12	Not Set
		Network	Network	OFF
			DHCP/Manual	DHCP
			MAC Address	---.---.---.---
		UPS Setting	Model	Disabled
			Shutdown Delay	30 seconds
		Information	System Version	x.xx-x/x.xx
			Power-On Time	xxxx(h)
			HDD Access	xxxx(h)
			Drive 1(R/W)	xxxx(h)/xxxx(h)
			Drive 2(R/W)	xxxx(h)/xxxx(h)
			Service Info	x
		HDD Tools	Target Drive	HDD
			Remaining Capacity	100.87(GB)
	Operation	Control Settings	Control	Local
			Port	RS-422A
			Time Code	RS-422A
			Eject Setting	Eject
		Video Settings	External Sync	Disabled
			OSD	Enabled
			Composite Out	Source Monitor
			Background Color	Black
			DV OUT	Disabled
			Test Signal	Start
		HDD Recording	Time Shift PLAY	Enabled
		Info Language	Language	English(GB)

Menu item				Setting
SETUP	Recording	Video/Audio	Video Encode Rate	9.644Mbps
			Video Filter(NR)	OFF
			Audio Encode	Dolby Digital
			Audio Level	L : +0 / R : +0
			Aspect	4:3
			Setup Level	(Blank)
		Others	Auto Chapter	Manual
			REC Button	REC Start
	Playback	Video	Aspect	4:3(LB)
			Still Mode	Frame
		Audio	Dolby Digital OUT	Dolby Digital
			DTS OUT	OFF
			96kHz PCM OUT	Convert To 48kHz
			MPEG OUT	MPEG
		Language	Audio	English
			Subtitle	English
			DVD Menu	English
		Others	Parental Level	8
			Country Code	us

TOP	STATUS	Drive	HDD
		Project	[NEW]hyymmdd_xx
		V Input	Composite
		A Input	RCA
		TV System	PAL

Factory-preset values for the main unit

- Front panel

Setting of the VOLUME control: MIN

- Rear panel

Setting of the Terminate switch: ON (upper position)

1.3 SPECIFICATIONS

• DVD RECODER [PRV-LX10]

General

Power rating : AC 220V- 240V, 50/60 Hz
Power consumption : Maximum 1.0 A
Power consumption during Standby : 6.5 W
Peak inrush current (Power on) : 30 A
Weight : 16.5 kg (36 lb 6 oz)
External dimensions : 427 (W) x 179.5 (H) x 539.5 (D) mm (including projecting parts)
16-13/16 (W) x 7-1/16 (H) x 21-1/4 (D) in (including projecting parts)
Ambient temperature during use : +5 °C to +35 °C (+41 °F to +95 °F)
Ambient humidity during use : 5 - 85% RH (without condensation)

Recording

Recording format : DVD: DVD-Video
HDD : VOB FILE
Recordable discs : DVD-R
DVD-RW

Video recording format

Sampling frequency : 13.5 MHz
Compression : MPEG

Audio recording format

Sampling frequency : 48 kHz
Compression format : Dolby Digital and Linear PCM (non-compressed)

Recording time

DVD-R/RW (manual rate) : About 1 - 6 hours
HDD (manual rate) : About 23 - 100 hours

Playback

Playable discs : DVD-Video, DVD-R, DVD-RW
(CD-R, CD-RW, and CD-ROM are supported for data read only)

Video input

Composite : BNC x 1, 1.0 Vp-p, 75 Ω
S-VIDEO : 4-pin mini DIN x 1
Y: 1.0 Vp-p, 75 Ω
C: 0.286 Vp-p (NTSC), 0.300 Vp-p (PAL), 75 Ω
Component : BNC x 3
Y: 1.0 Vp-p, 75 Ω
B-Y: 0.525/0.7 Vp-p selectable (NTSC), 0.525 Vp-p (PAL), 75 Ω (with 75% color bar)
R-Y: 0.525/0.7 Vp-p selectable (NTSC), 0.525 Vp-p (PAL), 75 Ω (with 75% color bar)

Video Output

Composite : BNC x 1, 1.0 Vp-p, 75 Ω
S-VIDEO : 4P mini DIN x 1
Y:1.0 Vp-p, 75 Ω
C: 0.286 Vp-p (NTSC), 0.300 Vp-p (PAL), 75 Ω
Component : BNC x 3
Y: 1.0 Vp-p, 75 Ω
Pb: 0.7 Vp-p, 75 Ω
Pr: 0.7 Vp-p, 75 Ω
S/N ratio : Composite/S-VIDEO(Y)/Component(Y): More than 60 dB (playback)

Audio input

L, R: unbalanced:	Pin jack x 2, 2 Vrms (0 dBfs), 22 k Ω(or more)
CH1 (L), CH2 (R)	: balanced: XLR (female) x 2, +4 dBu, 600Ω

Audio output

L, R: unbalanced	: Pin jack x 2, 2 Vrms (0 dBfs), 1.5 k Ω(or less)
Frequency response	: 4 Hz to 22 kHz (DVD fs: 48 kHz)
S/N ratio	: More than 60 dB
Distortion (THD+N)	: Less than 0.02 %
CH1 (L), CH2 (R): balanced	: XLR (male) x 2, 0 dBu, 600 Ω load, low-impedance
Frequency response	: 4 Hz to 22 kHz (DVD fs: 48 kHz)
S/N ratio	: More than 60 dB
Distortion (THD+N)	: Less than 0.02 %
Digital: unbalanced	: Pin jack x 1, 0.5 Vp-p, 75 Ω

External Sync Input

: BNC x 2, black burst, 0.286 Vp-p (NTSC), 0.300 Vp-p (PAL), 75 Ω (ON/OFF)

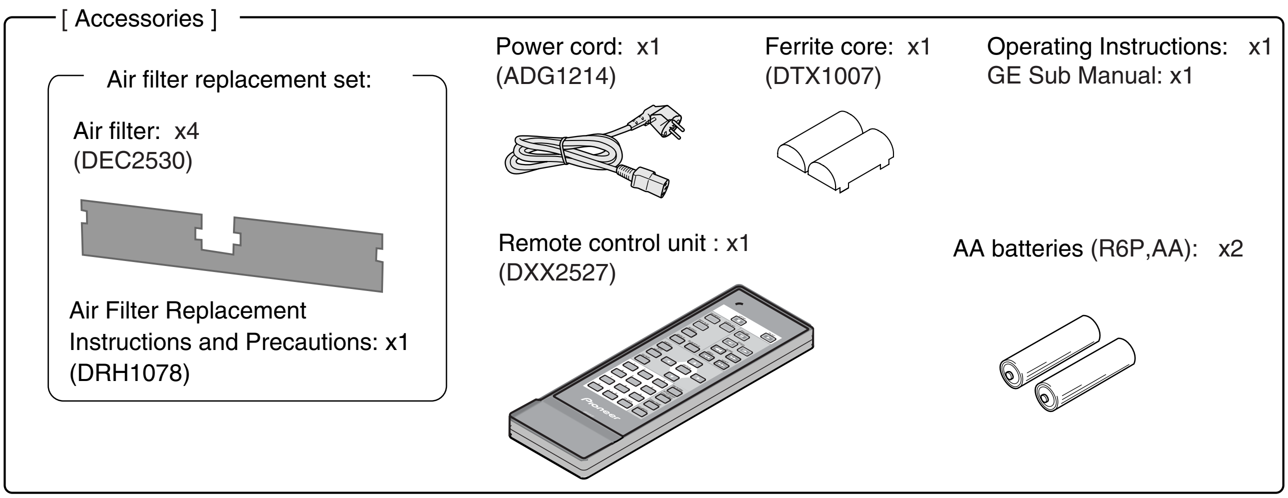
Other:

DV input/output	: 4 pin (i.Link/IEEE 1394 compatible) x 1
LTC input	: BNC x 1, 0.5-8 Vp-p, 3 kΩ
Remote input	: D-sub 9-pin (female) RS-422A compatible x 1 (Inch threads)
Remote output	: D-sub 9-pin (female) RS-422A compatible x 1 (Inch threads)
UPS control	: D-sub 9-pin (male) RS-232C compatible x 1 (Inch threads)
VGA output	: Mini D-sub 15-pin (female) x 1 (Inch threads)
Mouse/keyboard connectors	: 4P type A (USB 2.0 compatible) x 4
Ethernet	: 8P type (IEEE802.3 compatible, category 5) x 1

Accessories:

Remote control unit	1
AA batteries	2
Air filter replacement set	1
Power cord	1
Ferrite core	1
Operating Instructions	1
GE Sub Manual	1

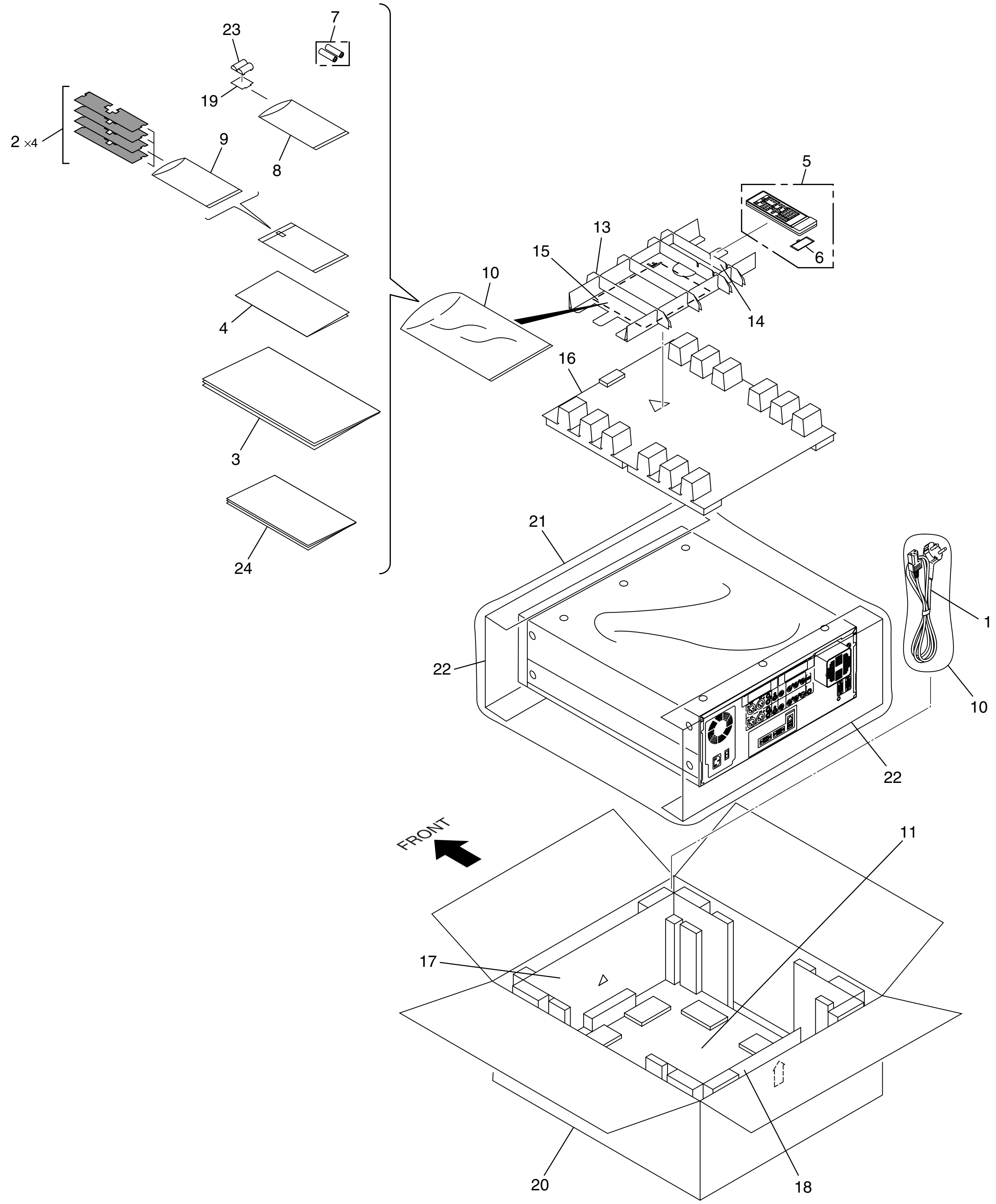
● *Specifications and appearance are subject to change without notice.*


[Accessories]
Air filter replacement set:
Air filter: x4
(DEC2530)
Air Filter Replacement
Instructions and Precautions: x1
(DRH1078)
Power cord: x1
(ADG1214)
Ferrite core: x1
(DTX1007)
Operating Instructions: x1
GE Sub Manual: x1
Remote control unit : x1
(DXX2527)
AA batteries (R6P,AA): x2

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

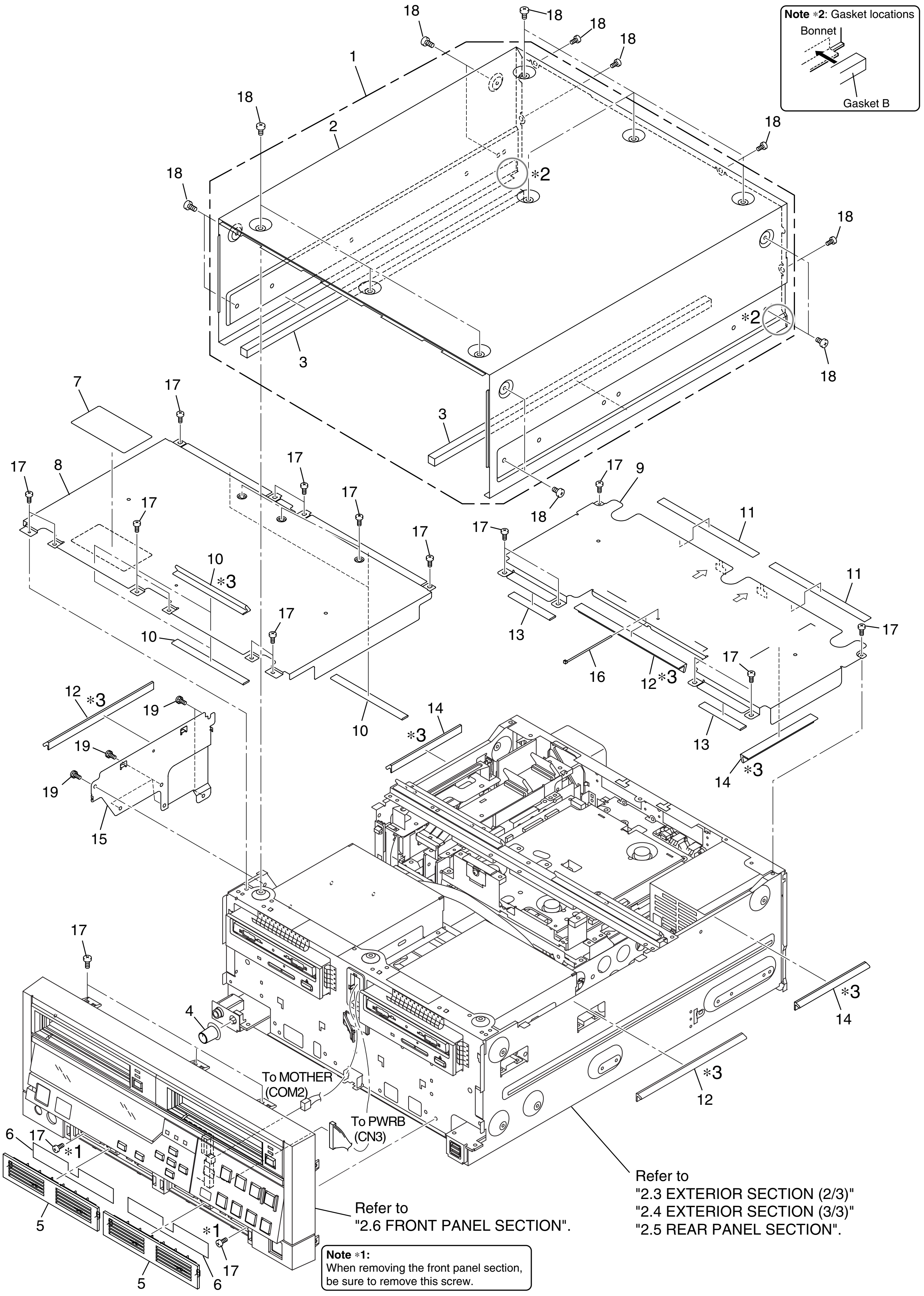
2.1 PACKING



PACKING Parts List

Mark	No.	Description	Part No.
⚠	1	Power Cord	ADG1214
	2	Air Filter	DEC2530
	3	Operating Instructions (English/French)	DRE1028
	4	Air Filter Replacement Instructions and Precautions (EU)	DRH1078
	5	Remote Control Unit	DXX2527
	6	Battery Cover	VNK4403
NSP	7	Dry Cell Battery (R6P, AA)	VEM1031
NSP	8	Polyethylene Bag (60 x 120 x 0.03)	Z21-004
NSP	9	Polyethylene Bag (100 x 230 x 0.018)	Z21-010
NSP	10	Polyethylene Bag (235 x 320 x 0.06)	Z21-019
	11	Bottom Pad	DHA1571
	12	• • • • •	
	13	Accessory Plate	DHA1651
	14	Accessory Plate 2	DHA1652
	15	Accessory Base	DHA1653
	16	Top Pad 2	DHA1655
	17	F Pad 2	DHA1656
	18	R Pad 2	DHA1657
	19	FE Sheet 2	DHA1675
	20	Packing Case EU	DHG2456
	21	Mirror Mat Bag	DHL1124
	22	Packing Sheet	RHC1052
	23	Ferrite Core	DTX1007
NSP	24	GE Sub Manual	DRH1084

2.2 EXTERIOR SECTION (1/3)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To MOTHER (COM2)
To PWRB (CN3)
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*1
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5
6
Bonnet
Gasket B

Note *2: Gasket locations

Refer to "2.3 EXTERIOR SECTION (2/3)" "2.4 EXTERIOR SECTION (3/3)" "2.5 REAR PANEL SECTION".

Refer to "2.6 FRONT PANEL SECTION".

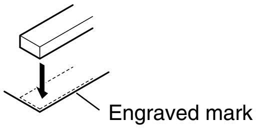
Note *1:
When removing the front panel section, be sure to remove this screw.

EXTERIOR SECTION Parts List

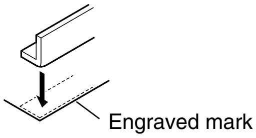
Mark	No.	Description	Part No.
	1	Bonnet Assy	DXA2021
NSP	2	Bonnet	DNE1502
	3	Gasket B	DEC2738
	4	Volume Knob 2	DAC2175
	5	Filter Cover	DNV1036
	6	Air Filter	DEC2530
	7	Panel Caution Label EU	DRW2236
NSP	8	Inner Cover F	DNE1520
NSP	9	Inner Cover R	DNE1521
	10	Gasket ICF	DEC2739
	11	Gasket ICR1	DEC2740
	12	Gasket RB	DEC2742
	13	Gasket ICR2	DEC2800
	14	Gasket C3	DEC2801
NSP	15	Side Cover	DNE1503
	16	Binder	ZCA-SKB90BK
	17	Screw	BBZ30P060FMC
	18	Screw	BMZ40P080FZK
	19	Screw	DBA1258

Note ∗3: Notes on locations where gaskets are adhered
At the locations where gaskets are to be adhered on each part, engraved marks are provided.

(a) Rectangular gaskets
Adhere a rectangular gasket by aligning it with the engraved corner marks. If no marks are provided on the part, adhere the gasket aligned with the four corners of the part.



(b) L-shaped gaskets
Adhere an L-shaped gasket by aligning the outer corner of the gasket with the engraved mark on the part. In cases of the chassis and side covers, adhere the gasket by aligning both ends of the gasket with the two engraved marks. If no marks are provided on the part, adhere the gasket by referring to the corresponding "Exploded views".



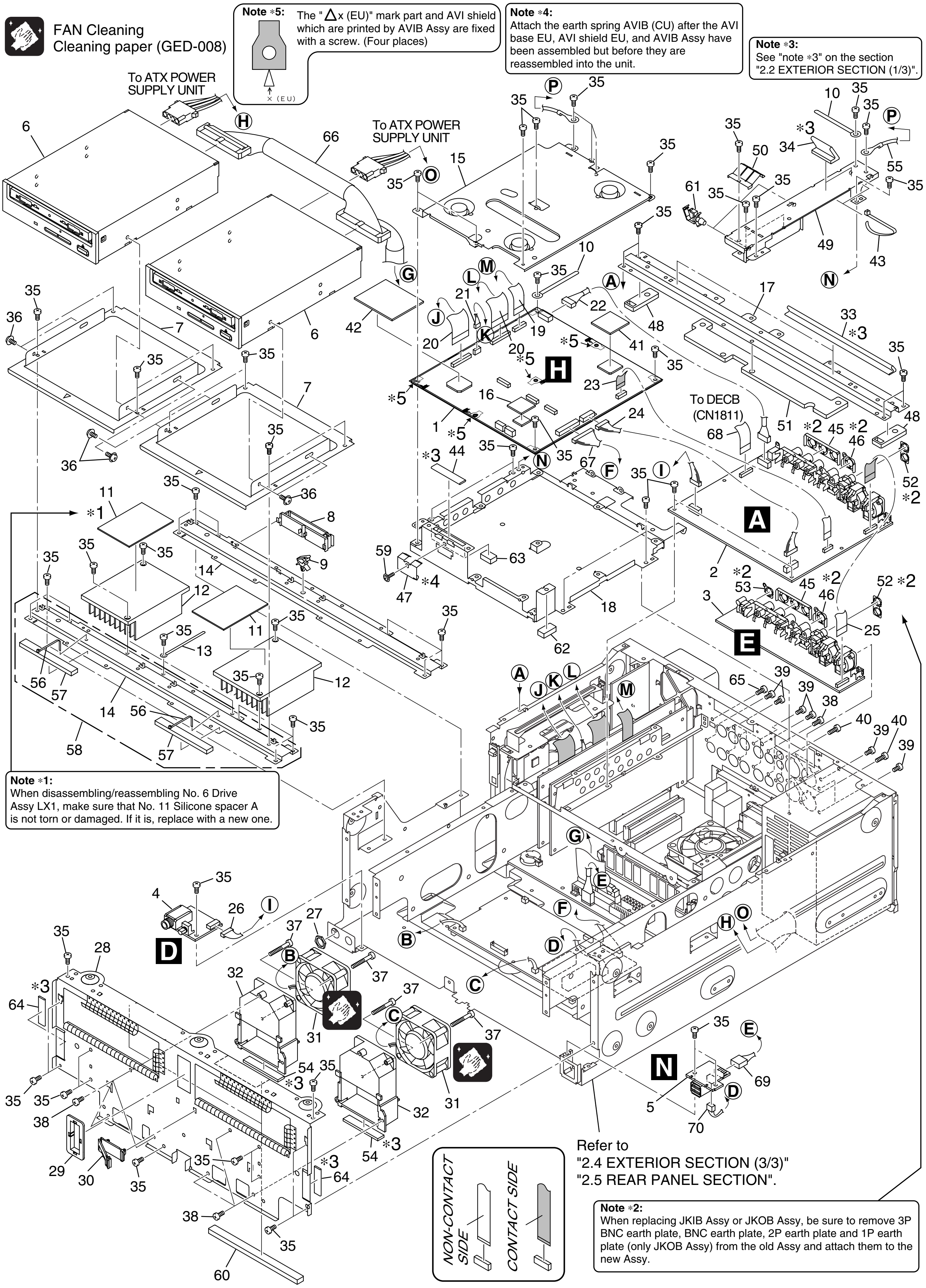
2.3 EXTERIOR SECTION (2/3)

FAN Cleaning
Cleaning paper (GED-008)

Note ∗5: The "△x (EU)" mark part and AVI shield which are printed by AVIB Assy are fixed with a screw. (Four places)

Note ∗4: Attach the earth spring AVIB (CU) after the AVI base EU, AVI shield EU, and AVIB Assy have been assembled but before they are reassembled into the unit.

Note ∗3: See "note ∗3" on the section "2.2 EXTERIOR SECTION (1/3)".


x (EU)
To ATX POWER SUPPLY UNIT
To ATX POWER SUPPLY UNIT
To DECB (CN1811)
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NON-CONTACT SIDE
CONTACT SIDE

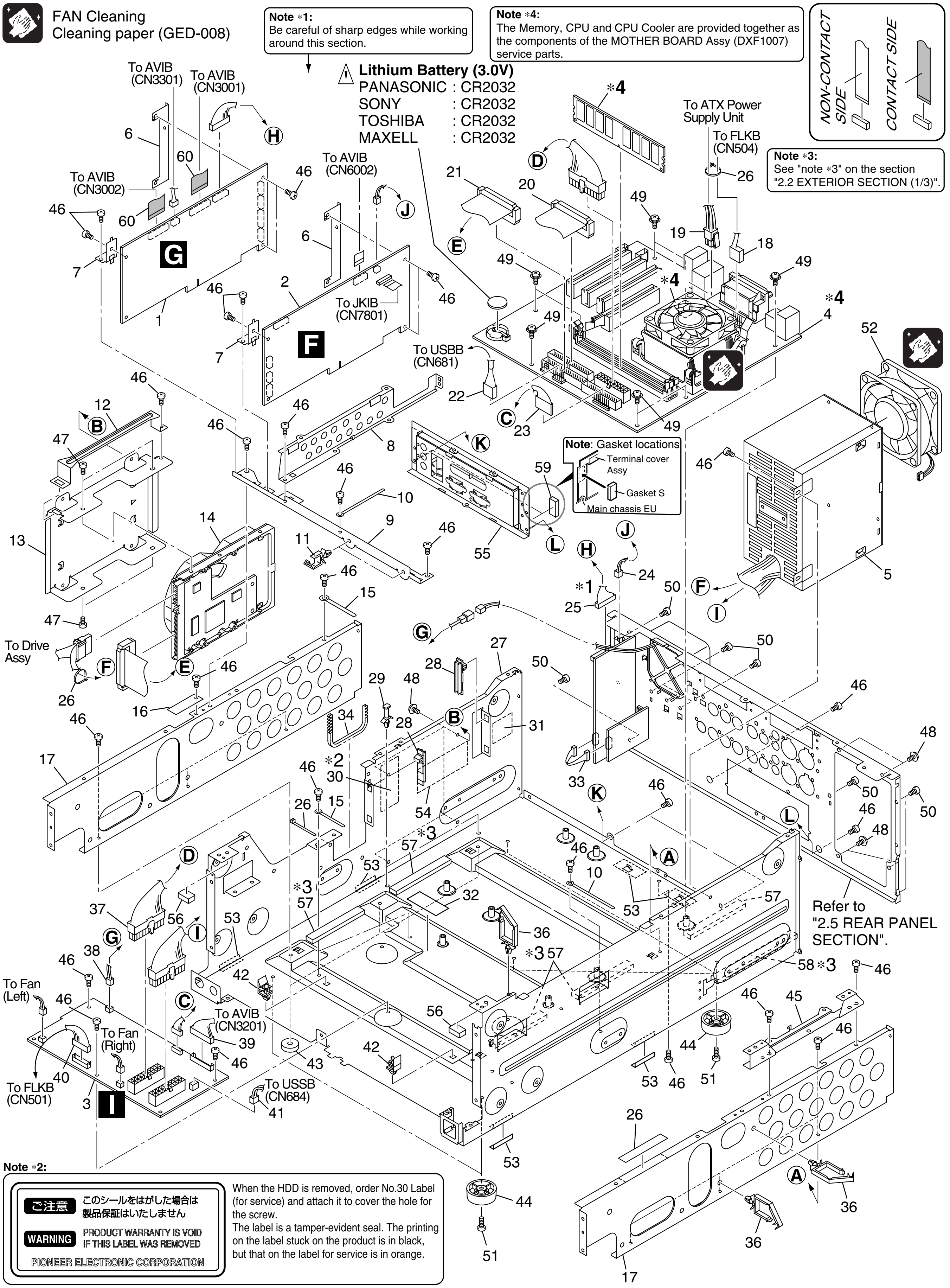
Note ∗1: When disassembling/reassembling No. 6 Drive Assy LX1, make sure that No. 11 Silicone spacer A is not torn or damaged. If it is, replace with a new one.

Refer to "2.4 EXTERIOR SECTION (3/3)" "2.5 REAR PANEL SECTION".

Note ∗2: When replacing JKIB Assy or JKOB Assy, be sure to remove 3P BNC earth plate, BNC earth plate, 2P earth plate and 1P earth plate (only JKOB Assy) from the old Assy and attach them to the new Assy.

Mark	No.	Description	Part No.
	1	AVIB Assy	DWV1202
	2	JKIB Assy	DWZ1126
	3	JKOB Assy	DWZ1127
	4	HPVB Assy	DWZ1128
	5	USBB Assy	DWZ1159
⚠	6	DRIVE Assy LX1	DXX2532
NSP	7	Drive Base	DNH2548
	8	Flat Cable Clamp	DEC2534
NSP	9	Wire Saddle	DEC2543
	10	Cord Holder	RNH-184
	11	Silicone Spacer A	DEB1600
	12	Heat Sink	DNG1087
	13	Cord Holder	RNH1005
NSP	14	Front Bridge	DNE1525
NSP	15	AVI Shield	DNE1505
	16	Radiation Sheet L	VEB1332
NSP	17	Rear Bridge EU	DNE1526
NSP	18	AVI Base EU	DNE1504
	19	Flexible Cable (30P)	DDD1229
	20	Flexible Cable (50P)	DDD1226
	21	Connector Assy 4P	DKP3640
	22	Housing Assy 6P	DKP3658
	23	Flexible Cable (20P)	DDD1228
	24	Connector Assy 7P	DKP3639
	25	Flexible Cable (30P)	DDD1230
	26	Connector Assy 8P	DKP3643
	27	Nut	NKX2FUC
NSP	28	Panel Stay Assy	DNE1501
NSP	29	Protector	DNK1340
	30	Flat Cable Clamp	DEC1850
⚠	31	DC Fan Motor	AXM7014
NSP	32	Fan Duct EU	DNK4447
	33	Gasket RB	DEC2742
	34	Gasket FC	DEC2802
	35	Screw	BBZ30P060FMC
	36	Screw	AMZ30P060FZK
	37	Screw	BPZ30P350FZK
	38	Screw	BPZ30P080FZK
	39	Screw	BBT30P060FZK
	40	Screw	PPZ30P100FMC
	41	EMC Sheet S	DEB1624
	42	EMC Sheet	DEB1620
	43	Binder	DEC2803
	44	Gasket AVI	DEC2747
	45	3P BNC Earth Plate (CU)	DBK1273
	46	BNC Earth Plate (CU)	DBK1274
	47	Earth Spring AVIB (CU)	DBK1275
	48	Cover Sheet BR	DEC2834
NSP	49	Flexible Cover	DNE1506
	50	FC Earth Metal (CU)	DBK1278
	51	Cover Sheet BC	DEC2833
	52	2P Earth Plate	ANK1156
	53	1P Earth Plate	ANK1228
	54	Gasket Fan	DEC2741
NSP	55	Earth Lead Jumper	DE006VD0
	56	Binder	ZCA-SKB90BK
	57	Gasket C1	DEC2745
	58	Front Bridge Assy	DXA2031
	59	Screw	AMZ30P060FMC
	60	Cover Sheet FC	DEC2837
	61	Locking Wire Saddle	DEC1305
	62	Cover Sheet AV1	DEC2835
	63	Cover Sheet AV2	DEC2836
	64	Gasket PS	DEC2744
	65	Screw	BCZ30P060FNI
	66	Connector 40P	DKP3671
	67	Connector 14P	DKP3636
	68	Flexible Cable 30P	DDD1229
	69	Connector 10P	DKP3646
	70	Connector 3P	DKP3655

2.4 EXTERIOR SECTION (3/3)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F
To AVIB
(CN3301)
To AVIB
(CN3001)
To AVIB
(CN3002)
To AVIB
(CN6002)
To JKIB
(CN7801)
To USBB
(CN681)
To ATX Power
Supply Unit
To FLKB
(CN504)
NON-CONTACT SIDE
CONTACT SIDE
Note: Gasket locations
Terminal cover Assy
Gasket S
Main chassis EU
To Drive Assy
To Fan (Left)
To Fan (Right)
To FLKB (CN501)
To AVIB (CN3201)
To USSB (CN684)
Refer to "2.5 REAR PANEL SECTION".
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FAN Cleaning
Cleaning paper (GED-008)

Note *1:
Be careful of sharp edges while working around this section.

Note *4:
The Memory, CPU and CPU Cooler are provided together as the components of the MOTHER BOARD Assy (DXF1007) service parts.

Note *3:
See "note *3" on the section "2.2 EXTERIOR SECTION (1/3)".

⚠ **Lithium Battery (3.0V)**

PANASONIC	: CR2032
SONY	: CR2032
TOSHIBA	: CR2032
MAXELL	: CR2032

Note *2:

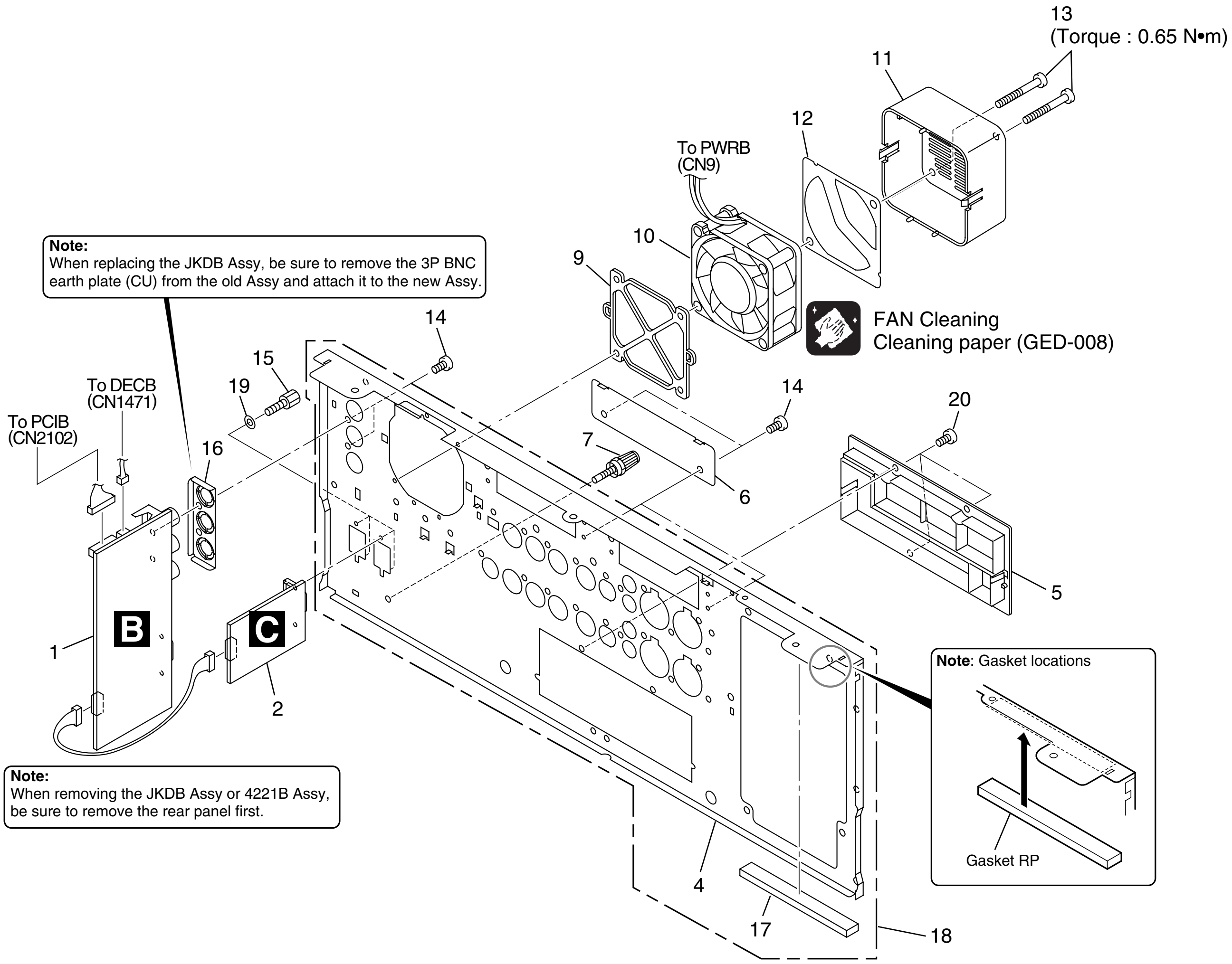
ご注意 このシールをはがした場合は製品保証はいたしません
WARNING PRODUCT WARRANTY IS VOID IF THIS LABEL WAS REMOVED
PIONEER ELECTRONIC CORPORATION

When the HDD is removed, order No.30 Label (for service) and attach it to cover the hole for the screw.
The label is a tamper-evident seal. The printing on the label stuck on the product is in black, but that on the label for service is in orange.

Mark	No.	Description	Part No.
	1	PCIB Assy	DWP1080
	2	DECB Assy	DWP1081
	3	PWRB (POLY) Assy	DWZ1129
⚠	4	MOTHER BOARD Assy	DXF1007
⚠	5	ATX Power Supply Unit	DXF1005
NSP	6	Board Stay R	DNF1677
NSP	7	Board Stay F	DNF1679
NSP	8	PCI Cover	DNE1449
NSP	9	Center Stay	DNE1444
	10	Cord Holder	RNH1005
	11	Locking Wire Saddle	DEC1717
NSP	12	HDD Handle	DNE1450
NSP	13	HDD Base	DNH2549
⚠	14	HDD 120G 4R120L0	VXF1016
	15	Cord Holder	RNH-184
	16	Edge Sheet	DEC2567
NSP	17	FR Plate	DND1246
	18	Connector Assy 10P-3P	DKP3645
	19	Connector Assy 4P	DKP3656
	20	Connector Assy 40P	DKP3671
	21	Connector Assy 40P	DKP3647
	22	Connector Assy 10P	DKP3646
	23	Connector Assy 9P-6P	DKP3635
	24	Connector Assy 2P	DKP3638
	25	Connector Assy 11P	DKP3642
	26	Binder	ZCA-SKB90BK
NSP	27	Main Chassis EU	DNA1312
NSP	28	PCB Support	VEC1267
	29	Card Spacer	QEC1012
	30	Label (for service)	BAX1238
NSP	31	Label	VRW-348
	32	Lithium Battery Caution Label	DRW2162
	33	Connector Assy 6P	DKP3644
	34	Edge Guard A	DEC2566
NSP	35	Wire Saddle	DEC2543
NSP	36	Wire Saddle (8S)	DEC1760
	37	Connector Assy 20P	DKP3657
	38	Connector Assy 2P	DKP3736
	39	Connector Assy 14P	DKP3636
	40	Connector Assy 20P	DKP3637
	41	Connector Assy 3P	DKP3655
NSP	42	Card Edge Spacer	DEC1211
	43	Screw Guard	DEB1447
	44	Leg	DEC2583
NSP	45	Jack Stay	DNE1446
	46	Screw	BBZ30P060FMC
	47	Screw	DBA1125
	48	Screw	AMZ30P060FZK
	49	Screw	BMP30P060FNI
	50	Screw	BBT30P060FZK

Mark	No.	Description	Part No.
	51	Screw	BBZ30P100FMC
⚠	52	DC Fan Motor	DZM1001
	53	Driver Sheet Assy	VEC2242
	54	Caution Label (EU)	DRW2214
NSP	55	Terminal Cover Assy	DNE1539
	56	Cover Sheet FR	DEC2838
	57	Gasket C1	DEC2745
	58	Gasket C2	DEC2746
	59	Gasket S	DEC2855
	60	Flexible Cable 50P	DDD1226

2.5 REAR PANEL SECTION



Note:
When replacing the JKDB Assy, be sure to remove the 3P BNC earth plate (CU) from the old Assy and attach it to the new Assy.

Note:
When removing the JKDB Assy or 4221B Assy, be sure to remove the rear panel first.

Note: Gasket locations

FAN Cleaning
Cleaning paper (GED-008)

13
(Torque : 0.65 N•m)
11
12
To PWRB
(CN9)
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19
To DECB
(CN1471)
To PCIB
(CN2102)
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B
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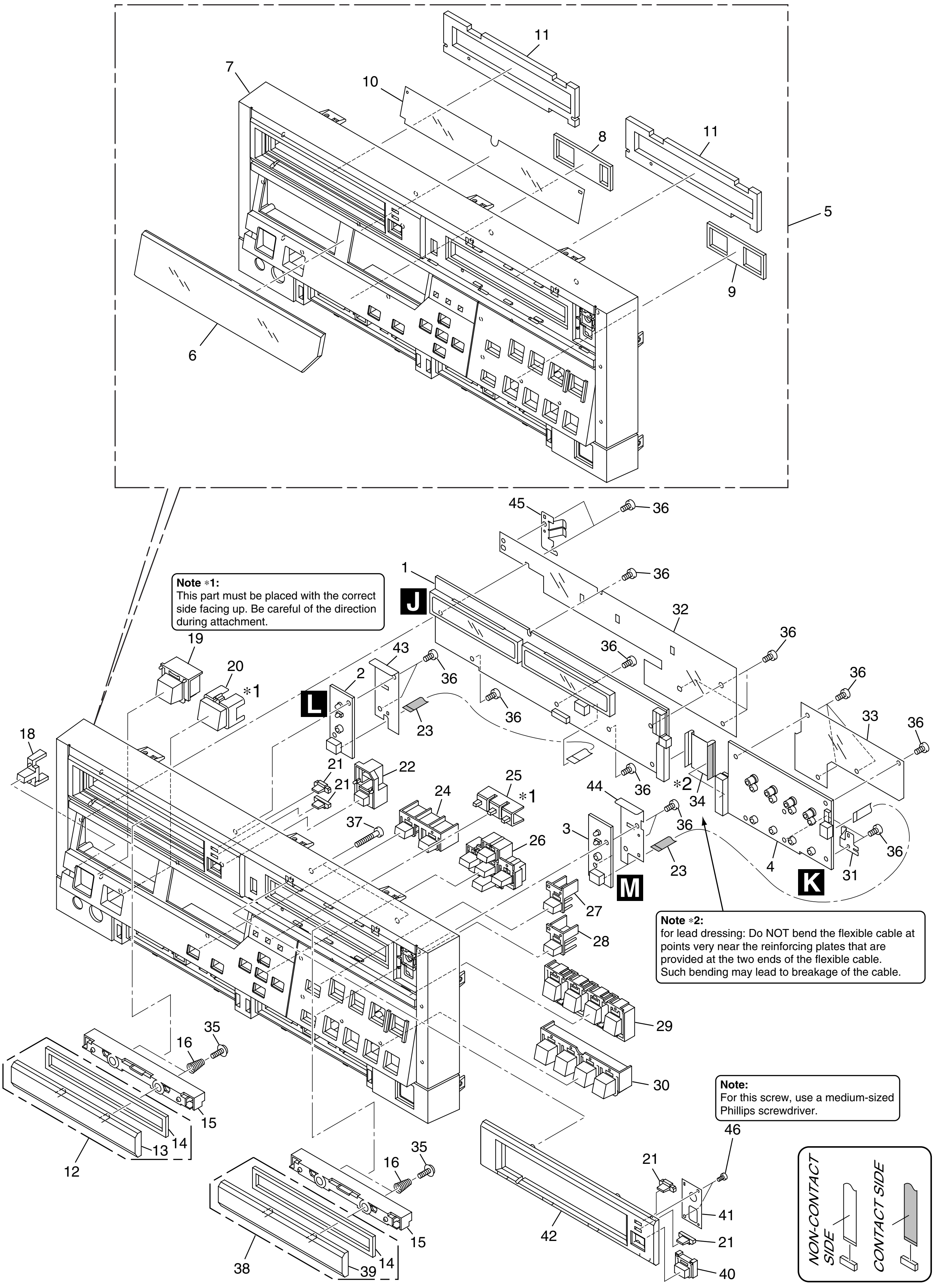
Gasket RP

REAR PANEL SECTIN Parts List

Mark	No.	Description	Part No.
	1	JKDB Assy	DWZ1134
	2	422IB Assy	DWZ1133
	3	• • • • •	
NSP	4	Rear Panel	DNC1703
NSP	5	Terminal Cover	DNK4154
NSP	6	Blind Plate	DNF1678
	7	Earth Terminal	DKE-102
NSP	8	Guard Tape	DEC2587
	9	Fan Spacer	AMR7265
⚠	10	DC Fan Motor	AXM7014
	11	Fan Cover	AMR7264
	12	Fan Plate	DEC2692
	13	Screw	ABA7003
	14	Screw	BBT30P060FZK
	15	Screw	BBA1051
	16	3P BNC Earth Plate (CU)	DBK1273
	17	Gasket RP	DEC2743
	18	Rear Panel Assy	DXA2022
	19	Washer	WH30FNI
	20	Screw	BBZ30P060FMC

2.6 FRONT PANEL SECTION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NON-CONTACT SIDE
CONTACT SIDE

Note *1:
This part must be placed with the correct side facing up. Be careful of the direction during attachment.

Note *2:
for lead dressing: Do NOT bend the flexible cable at points very near the reinforcing plates that are provided at the two ends of the flexible cable. Such bending may lead to breakage of the cable.

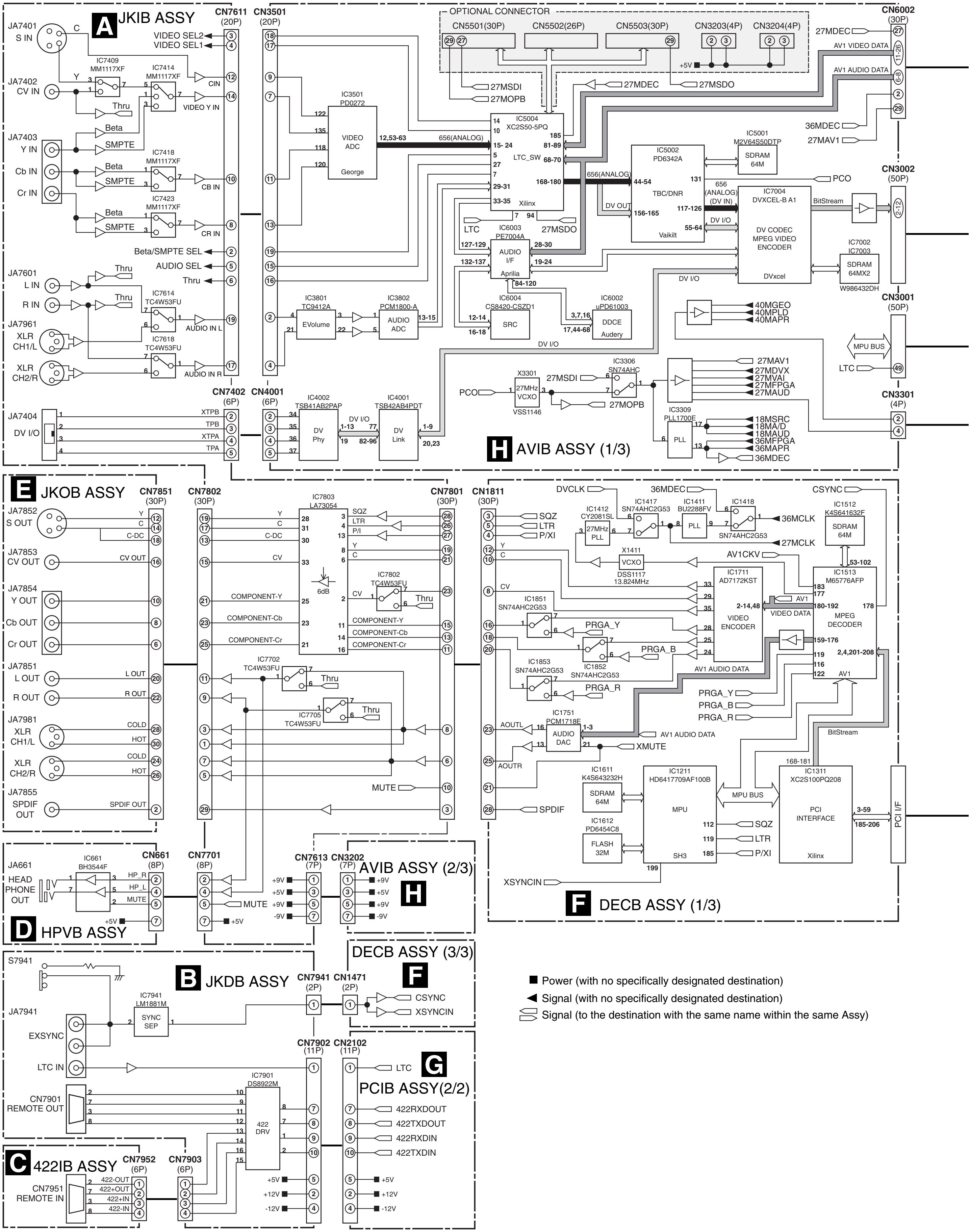
Note:
For this screw, use a medium-sized Phillips screwdriver.

Mark	No.	Description	Part No.
	1	FLKB(WYV/RB) Assy	DWZ1164
	2	DRV1B Assy	DWZ1160
	3	DRV2B Assy	DWZ1161
	4	KEYB(WYV/RB) Assy	DWZ1157
	5	Front Panel EU Assy	DXA2023
NSP	6	FL Window	DAK1001or DEC2849
NSP	7	Front Panel EU	DAX1014
NSP	8	Air Seal A	DED1164
NSP	9	Air Seal B	DED1165
NSP	10	FL Filter	DEC2531
	11	Drive Filter	DED1163
	12	Tray Panel 1 Assy	DXA1961
NSP	13	Tray Panel 1	DNV1037
NSP	14	Tray Filter	DEC2528
	15	Tray Holder	DNV1038
	16	Tray Spring	DBH1515
	17	•••••	
	18	Power Lens	DNV1043
	19	Power Button	DAC2105
	20	IR Window	DNV1042
	21	Drive Lens	DNV1039
	22	Tray Button 1	DAC2099
	23	Flexible Cable (6P)	DDD1231
	24	ETC Button	DAC2103
	25	Drive Select Lens	DNV1041
	26	Cursor Button	DAC2104
	27	Drive Select Button	DAC2102
	28	Preview Button	DAC2107
	29	Play Button 1	DAC2100
	30	Play Button 2	DAC2101
	31	Earth Metal B (CU)	DBK1277
	32	Barrier FL	DEC2748
	33	Barrier 2	DEC2533
	34	Flexible Cable (25P)	DDD1232
	35	Screw	VBA1034
	36	Screw	BPZ30P080FZK
	37	Screw	BPZ30P250FMC
	38	Tray Panel 2 Assy	DXA1962
NSP	39	Tray Panel 2	DNV1044
	40	Tray Button 2	DAC2110
	41	Drive Lens Support Plate	DEC2536
	42	Drive 2 Panel	DNV1045
	43	Barrier D1	DEC2765
	44	Barrier D2	DEC2766
	45	Earth Metal F (CU)	DBK1276
	46	Screw	BPZ20P060FZK

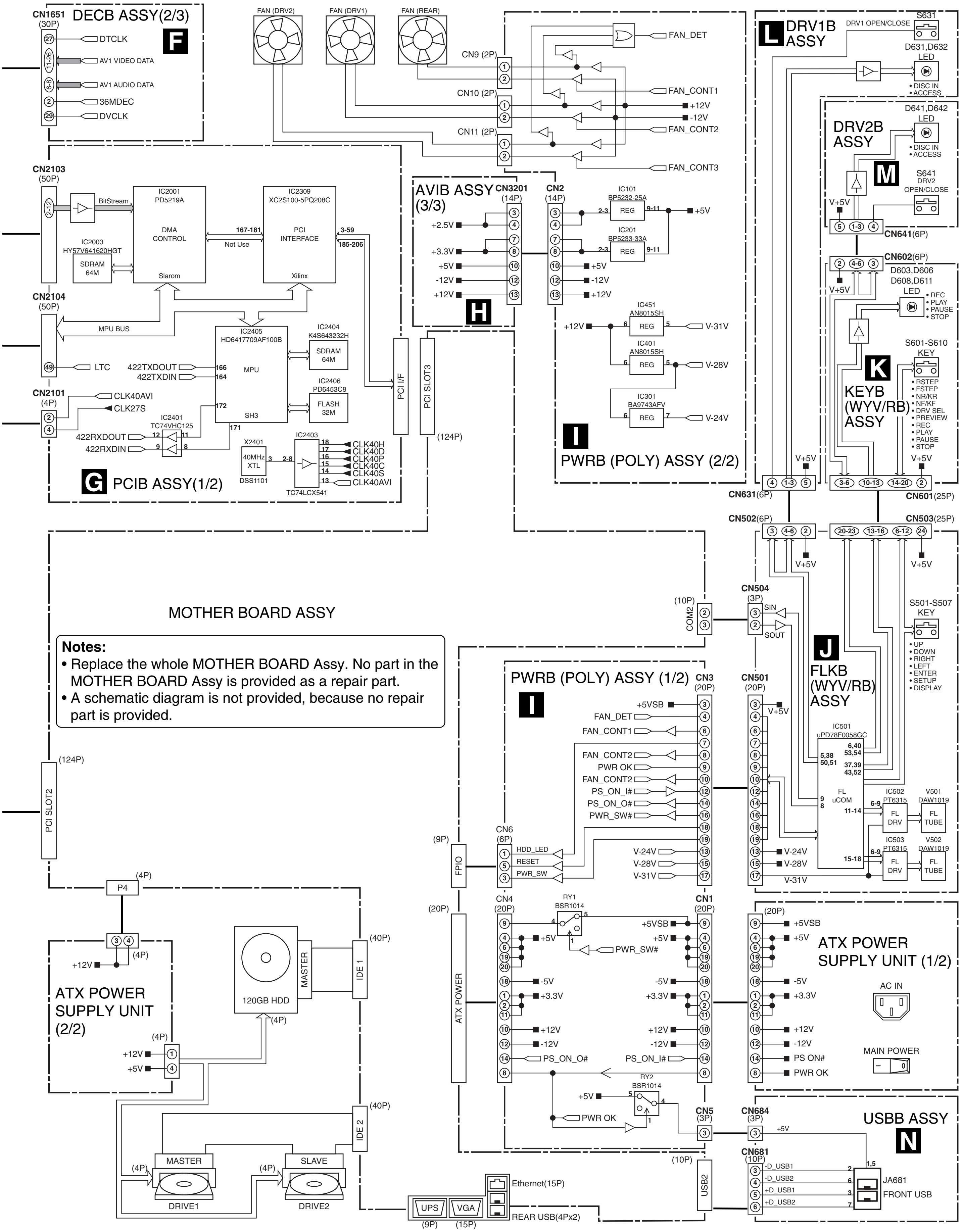
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

3.1.1 OVERALL BLOCK DIAGRAM


A JKIB ASSY
JA7401 S IN
JA7402 CV IN
JA7403 Y IN
Cb IN
Cr IN
JA7601 L IN
R IN
JA7961 XLR CH1/L
XLR CH2/R
JA7404 DV I/O
IC7409 MM1117XF
IC7414 MM1117XF
IC7418 MM1117XF
IC7423 MM1117XF
IC7614 TC4W53FU
IC7618 TC4W53FU
Thru
Beta
SMPTE
VIDEO SEL2
VIDEO SEL1
CIN
VIDEO Y IN
CB IN
CR IN
Beta/SMPTE SEL
AUDIO SEL
AUDIO IN L
AUDIO IN R
XTPB
TPB
XTPA
TPA
CN7611 (20P)
CN3501 (20P)
CN7402 (6P)
CN4001 (6P)
OPTIONAL CONNECTOR
CN5501(30P)
CN5502(26P)
CN5503(30P)
CN3203(4P)
CN3204(4P)
+5V
IC3501 PD0272 VIDEO ADC George
12,53-63
656(ANALOG)
27MSDI
27MOPB
27MDEC
27MSDO
IC5004 XC2S50-5PQ LTC_SW Xilinx
IC5002 PD6342A TBC/DNR Vaikilt
IC5001 M2V64S50DTP SDRAM 64M
IC7004 DVXCEL-B A1 DV CODEC MPEG VIDEO ENCODER DVxcel
IC7002 IC7003 SDRAM 64MX2 W986432DH
656 (ANALOG) (DV IN)
DV OUT
DV I/O
BitStream
PCO
36MDEC
27MAV1
CN6002 (30P)
AV1 VIDEO DATA
AV1 AUDIO DATA
CN3002 (50P)
CN3001 (50P)
CN3301 (4P)
MPU BUS
LTC
IC6003 PE7004A AUDIO I/F Aprilia
IC6004 CS8420-CSZD1 SRC
IC6002 uPD61003 DDCE Audery
IC3801 TC9412A EVolume
IC3802 PCM1800-A AUDIO ADC
IC4002 TSB41AB2PAP DV Phy
IC4001 TSB42AB4PDT DV Link
X3301 27MHz VCXO VSS1146
IC3306 SN74AHC
IC3309 PLL1700E PLL
40MGEO
40MPLD
40MAPR
27MAV1
27MDVX
27MVAI
27MFPGA
27MAUD
18MSRC
18MA/D
18MAUD
36MFPGA
36MAPR
36MDEC
H AVIB ASSY (1/3)
E JKOB ASSY
JA7852 S OUT
JA7853 CV OUT
JA7854 Y OUT
Cb OUT
Cr OUT
JA7851 L OUT
R OUT
JA7981 XLR CH1/L
XLR CH2/R
JA7855 SPDIF OUT
COLD
HOT
CN7851 (30P)
CN7802 (30P)
CN7801 (30P)
IC7803 LA73054 6dB
COMPONENT-Y
COMPONENT-Cb
COMPONENT-Cr
SQZ
LTR
P/I
IC7802 TC4W53FU
IC7702 TC4W53FU
IC7705 TC4W53FU
MUTE
CN1811 (30P)
DVCLK
36MDEC
CSYNC
IC1412 CY2081SL 27MHz PLL
IC1417 SN74AHC2G53
IC1411 BU2288FV PLL
IC1418 SN74AHC2G53
36MCLK
27MCLK
X1411 VCXO DSS1117 13.824MHz
AV1CKV
IC1512 K4S641632F SDRAM 64M
IC1711 AD7172KST VIDEO ENCODER
IC1513 M65776AFP MPEG DECODER
VIDEO DATA
AV1
IC1851 SN74AHC2G53
IC1852 SN74AHC2G53
IC1853 SN74AHC2G53
PRGA_Y
PRGA_B
PRGA_R
AV1 AUDIO DATA
BitStream
IC1751 PCM1718E AUDIO DAC
AOUTL
AOUTR
XMUTE
SPDIF
IC1611 K4S643232H SDRAM 64M
IC1612 PD6454C8 FLASH 32M
IC1211 HD6417709AF100B MPU SH3
IC1311 XC2S100PQ208 PCI INTERFACE Xilinx
MPU BUS
PCI I/F
XSYNCIN
F DECB ASSY (1/3)
JA661 HEAD PHONE OUT
IC661 BH3544F
HP_R
HP_L
CN661 (8P)
CN7701 (8P)
D HPVB ASSY
CN7613 (7P)
CN3202 (7P)
AVIB ASSY (2/3) H
+9V
+5V
-9V
S7941
JA7941
EXSYNC
LTC IN
B JKDB ASSY
IC7941 LM1881M SYNC SEP
CN7941 (2P)
CN1471 (2P)
DECB ASSY (3/3) F
CSYNC
XSYNCIN
CN7902 (11P)
CN2102 (11P)
CN7901 REMOTE OUT
IC7901 DS8922M 422 DRV
G PCIB ASSY(2/2)
422RXDOUT
422TXDOUT
422RXDIN
422TXDIN
C 422IB ASSY
CN7951 REMOTE IN
CN7952 (6P)
CN7903 (6P)
422-OUT
422+OUT
422+IN
422-IN
+12V
-12V

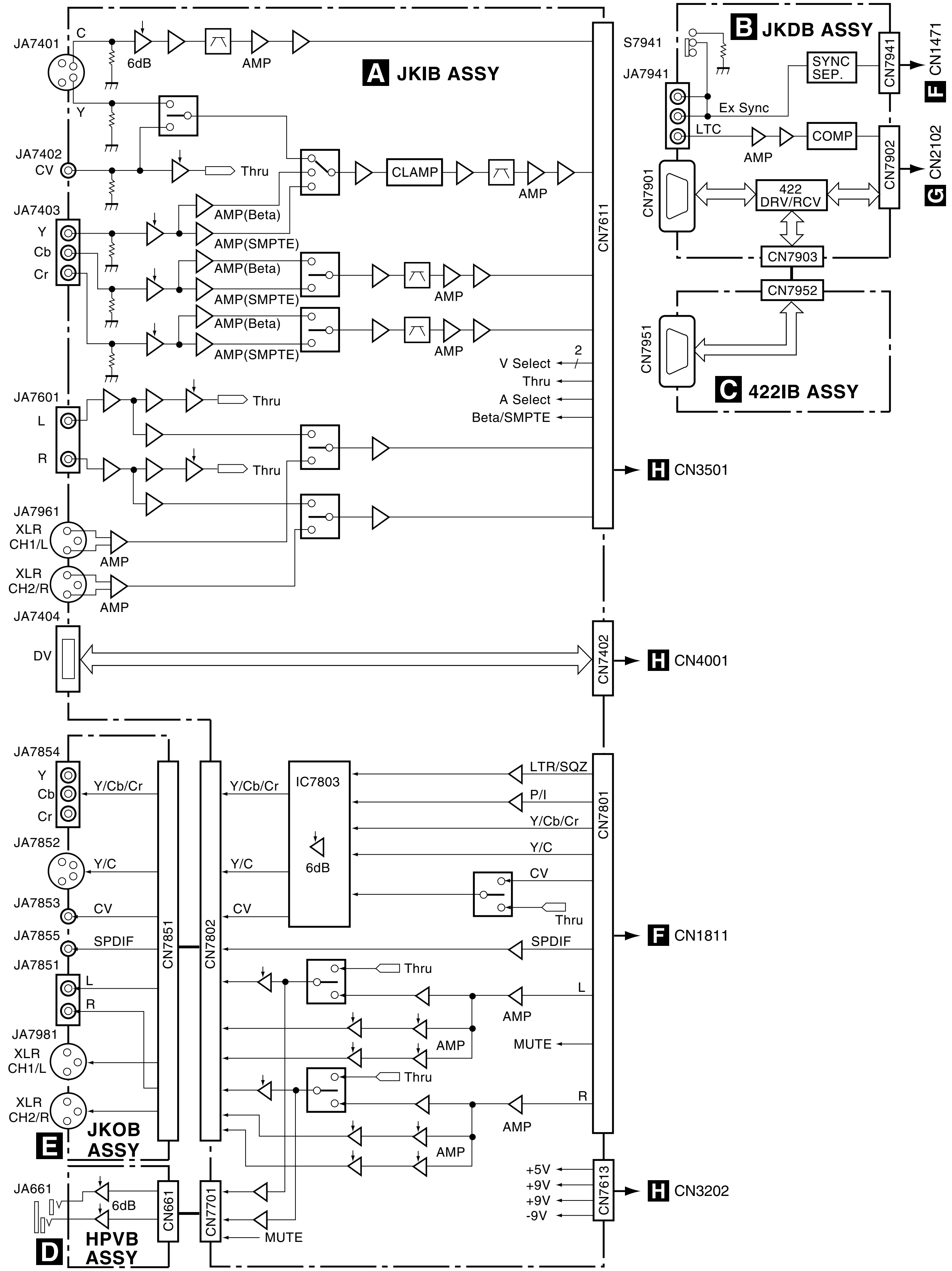
■ Power (with no specifically designated destination)
◀ Signal (with no specifically designated destination)
⇨ Signal (to the destination with the same name within the same Assy)


CN1651 (30P)
DECB ASSY(2/3)
F
DTCLK
AV1 VIDEO DATA
AV1 AUDIO DATA
36MDEC
DVCLK
FAN (DRV2)
FAN (DRV1)
FAN (REAR)
CN9 (2P)
CN10 (2P)
CN11 (2P)
FAN_DET
FAN_CONT1
+12V
-12V
FAN_CONT2
FAN_CONT3
L
DRV1B ASSY
DRV1 OPEN/CLOSE
S631
D631,D632 LED
• DISC IN • ACCESS
D641,D642 LED
DRV2B ASSY
M
S641 DRV2 OPEN/CLOSE
CN641(6P)
CN602(6P)
D603,D606 D608,D611 LED
• REC • PLAY • PAUSE • STOP
S601-S610 KEY
K
KEYB (WYV/RB) ASSY
• RSTEP • FSTEP • NR/KR • NF/KF • DRV SEL • PREVIEW • REC • PLAY • PAUSE • STOP
CN631(6P)
CN601(25P)
CN2103 (50P)
BitStream
IC2001 PD5219A DMA CONTROL Slarom
IC2309 XC2S100-5PQ208C PCI INTERFACE Xilinx
167-181
Not Use
3-59
185-206
IC2003 HY57V641620HGT SDRAM 64M
CN2104 (50P)
MPU BUS
IC2405 HD6417709AF100B MPU SH3
IC2404 K4S643232H SDRAM 64M
IC2406 PD6453C8 FLASH 32M
LTC
422TXDOUT
422TXDIN
CN2101 (4P)
CLK40AVI
CLK27S
IC2401 TC74VHC125
422RXDOUT
422RXDIN
X2401 40MHz XTL DSS1101
IC2403 TC74LCX541
CLK40H CLK40D CLK40P CLK40C CLK40S CLK40AVI
G
PCIB ASSY(1/2)
PCI I/F
PCI SLOT3
(124P)
AVIB ASSY (3/3)
CN3201 (14P)
CN2 (14P)
+2.5V
+3.3V
+5V
-12V
+12V
H
IC101 BP5232-25A REG
IC201 BP5233-33A REG
IC451 AN8015SH REG
IC401 AN8015SH REG
IC301 BA9743AFV REG
V-31V
V-28V
V-24V
I
PWRB (POLY) ASSY (2/2)
CN502(6P)
CN503(25P)
V+5V
MOTHER BOARD ASSY
COM2 (10P)
CN504 (3P)
SIN
SOUT
S501-S507 KEY
• UP • DOWN • RIGHT • LEFT • ENTER • SETUP • DISPLAY
J
FLKB (WYV/RB) ASSY
PWRB (POLY) ASSY (1/2)
CN3 (20P)
CN501 (20P)
+5VSB
FAN_DET
FAN_CONT1
FAN_CONT2
PWR OK
PS_ON_I#
PS_ON_O#
PWR_SW#
IC501 uPD78F0058GC FL uCOM
IC502 PT6315 FL DRV
V501 DAW1019 FL TUBE
IC503 PT6315 FL DRV
V502 DAW1019 FL TUBE
CN6 (6P)
HDD_LED
RESET
PWR_SW
FPIO (9P)
PCI SLOT2 (124P)
P4 (4P)
ATX POWER SUPPLY UNIT (2/2)
120GB HDD
MASTER
IDE 1 (40P)
CN4 (20P)
RY1 BSR1014
CN1 (20P)
-5V
+3.3V
PS_ON_O#
PS_ON_I#
RY2 BSR1014
PWR OK
CN5 (3P)
ATX POWER (20P)
ATX POWER SUPPLY UNIT (1/2)
AC IN
PS ON#
MAIN POWER
CN684 (3P)
USBB ASSY
N
CN681 (10P)
-D_USB1 -D_USB2 +D_USB1 +D_USB2
JA681 FRONT USB
USB2 (10P)
IDE 2 (40P)
MASTER
SLAVE
DRIVE1
DRIVE2
UPS (9P)
VGA (15P)
Ethernet(15P)
REAR USB(4Px2)
A B C D E F

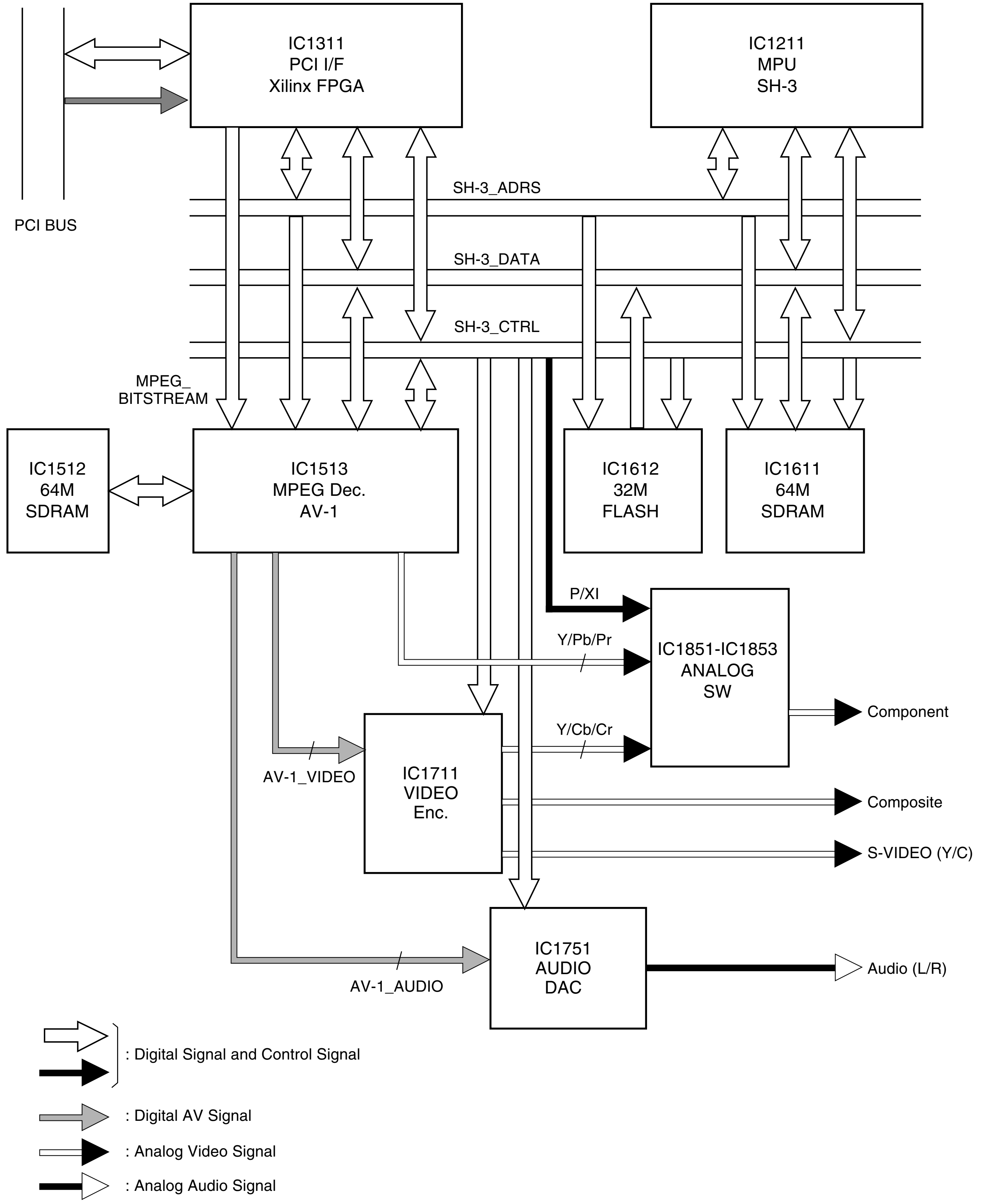
Notes:

- Replace the whole MOTHER BOARD Assy. No part in the MOTHER BOARD Assy is provided as a repair part.
- A schematic diagram is not provided, because no repair part is provided.

3.1.2 I/O BLOCK

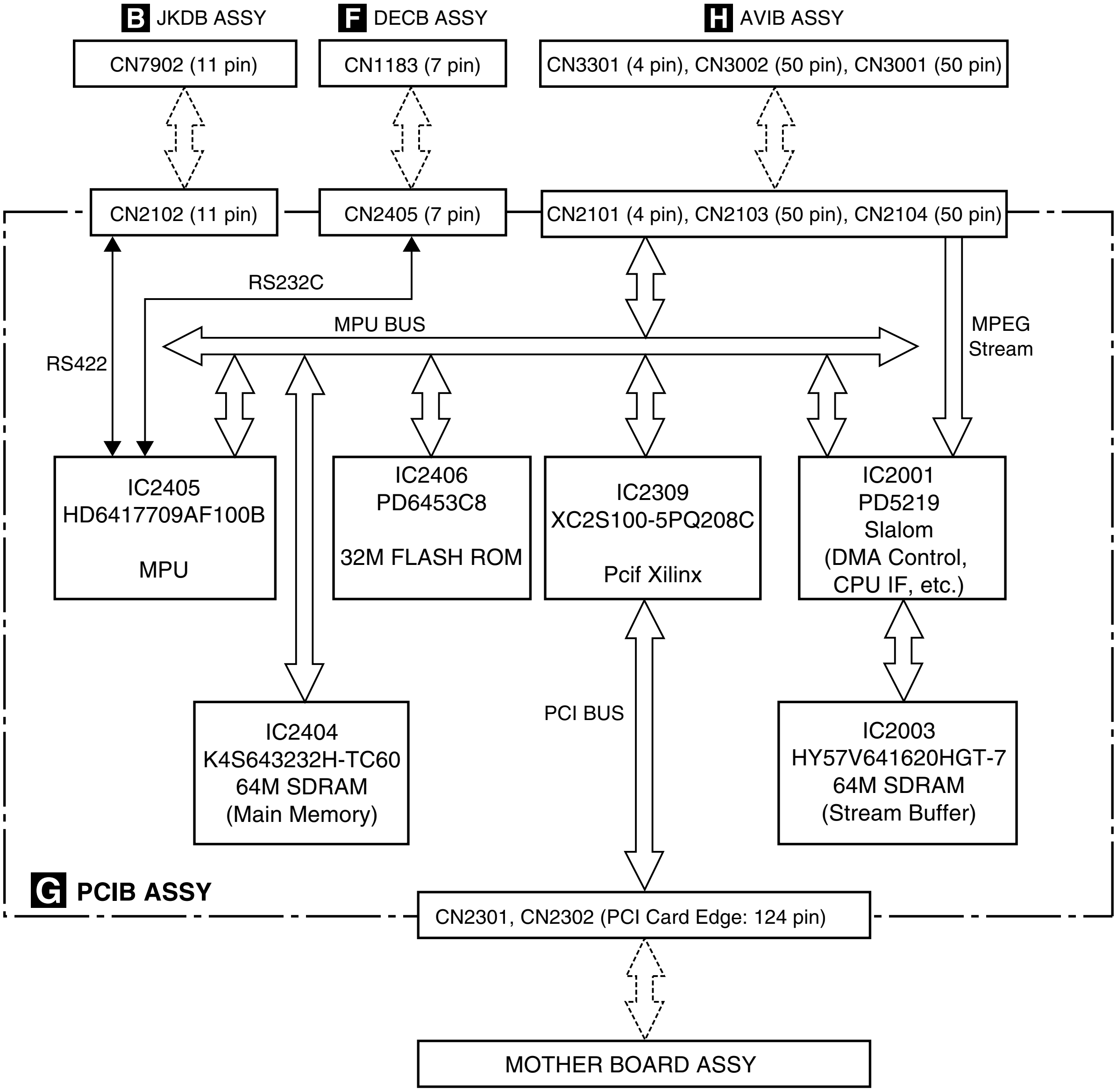

A
B
C
D
E
F
A JKIB ASSY
B JKDB ASSY
C 422IB ASSY
D HPVB ASSY
E JKOB ASSY
JA7401
C
Y
6dB
AMP
JA7402
CV
Thru
CLAMP
AMP
JA7403
Y
Cb
Cr
AMP(Beta)
AMP(SMPTE)
AMP(Beta)
AMP(SMPTE)
AMP
AMP(Beta)
AMP(SMPTE)
AMP
V Select
2
Thru
A Select
Beta/SMPTE
JA7601
L
R
Thru
Thru
CN7611
H CN3501
JA7961
XLR
CH1/L
AMP
XLR
CH2/R
AMP
JA7404
DV
CN7402
H CN4001
S7941
JA7941
Ex Sync
LTC
SYNC SEP.
AMP
COMP
CN7941
F CN1471
CN7902
G CN2102
CN7901
422 DRV/RCV
CN7903
CN7952
CN7951
JA7854
Y
Cb
Cr
Y/Cb/Cr
JA7852
Y/C
JA7853
CV
JA7855
SPDIF
JA7851
L
R
JA7981
XLR
CH1/L
XLR
CH2/R
CN7851
CN7802
Y/Cb/Cr
Y/C
CV
IC7803
6dB
LTR/SQZ
P/I
Y/Cb/Cr
Y/C
CV
Thru
SPDIF
Thru
L
AMP
AMP
MUTE
Thru
R
AMP
AMP
CN7801
F CN1811
JA661
6dB
CN661
CN7701
MUTE
+5V
+9V
+9V
-9V
CN7613
H CN3202

3.1.3 DECB ASSY



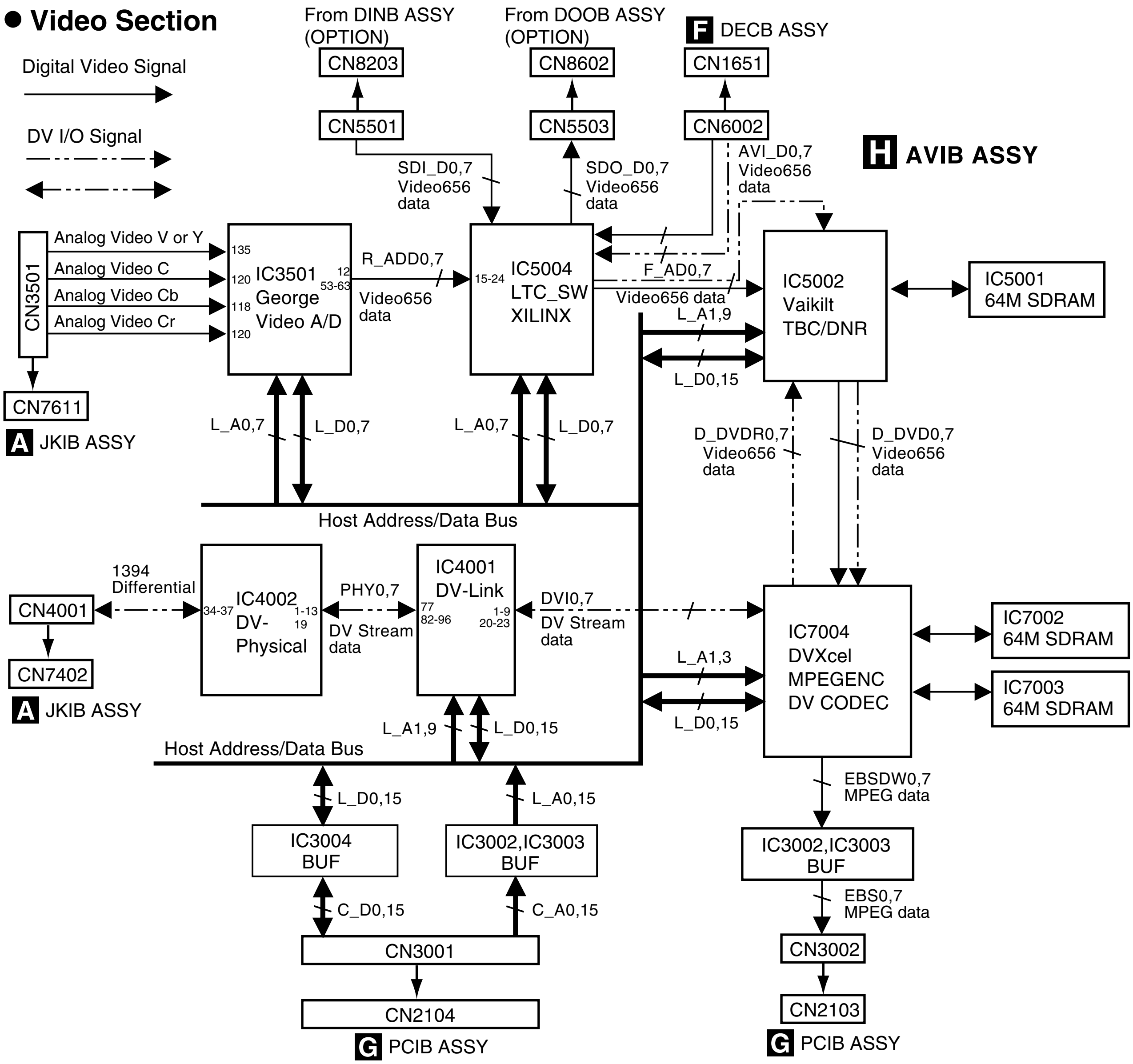
IC1311
PCI I/F
Xilinx FPGA
IC1211
MPU
SH-3
SH-3_ADRS
PCI BUS
SH-3_DATA
SH-3_CTRL
MPEG_
BITSTREAM
IC1512
64M
SDRAM
IC1513
MPEG Dec.
AV-1
IC1612
32M
FLASH
IC1611
64M
SDRAM
P/XI
Y/Pb/Pr
IC1851-IC1853
ANALOG
SW
Component
Y/Cb/Cr
AV-1_VIDEO
IC1711
VIDEO
Enc.
Composite
S-VIDEO (Y/C)
IC1751
AUDIO
DAC
Audio (L/R)
AV-1_AUDIO
: Digital Signal and Control Signal
: Digital AV Signal
: Analog Video Signal
: Analog Audio Signal

3.1.4 PCIB ASSY

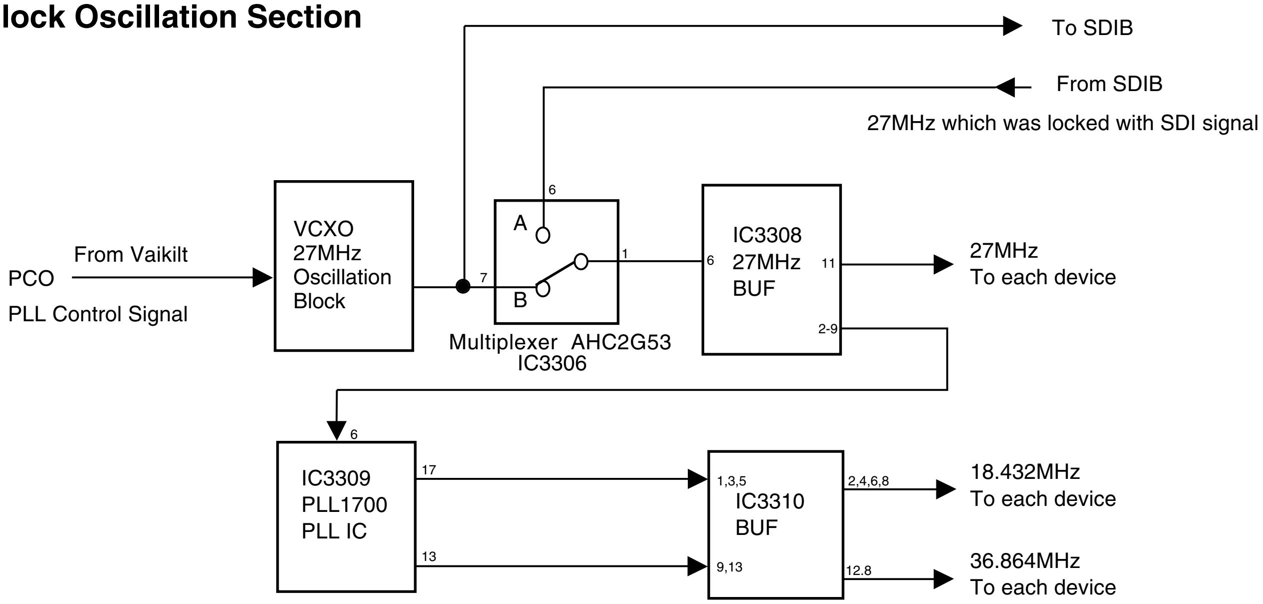

B JKDB ASSY
F DECB ASSY
H AVIB ASSY
CN7902 (11 pin)
CN1183 (7 pin)
CN3301 (4 pin), CN3002 (50 pin), CN3001 (50 pin)
CN2102 (11 pin)
CN2405 (7 pin)
CN2101 (4 pin), CN2103 (50 pin), CN2104 (50 pin)
RS232C
MPU BUS
MPEG Stream
RS422
IC2405 HD6417709AF100B MPU
IC2406 PD6453C8 32M FLASH ROM
IC2309 XC2S100-5PQ208C Pcif Xilinx
IC2001 PD5219 Slalom (DMA Control, CPU IF, etc.)
PCI BUS
IC2404 K4S643232H-TC60 64M SDRAM (Main Memory)
IC2003 HY57V641620HGT-7 64M SDRAM (Stream Buffer)
G PCIB ASSY
CN2301, CN2302 (PCI Card Edge: 124 pin)
MOTHER BOARD ASSY

3.1.5 AVIB ASSY

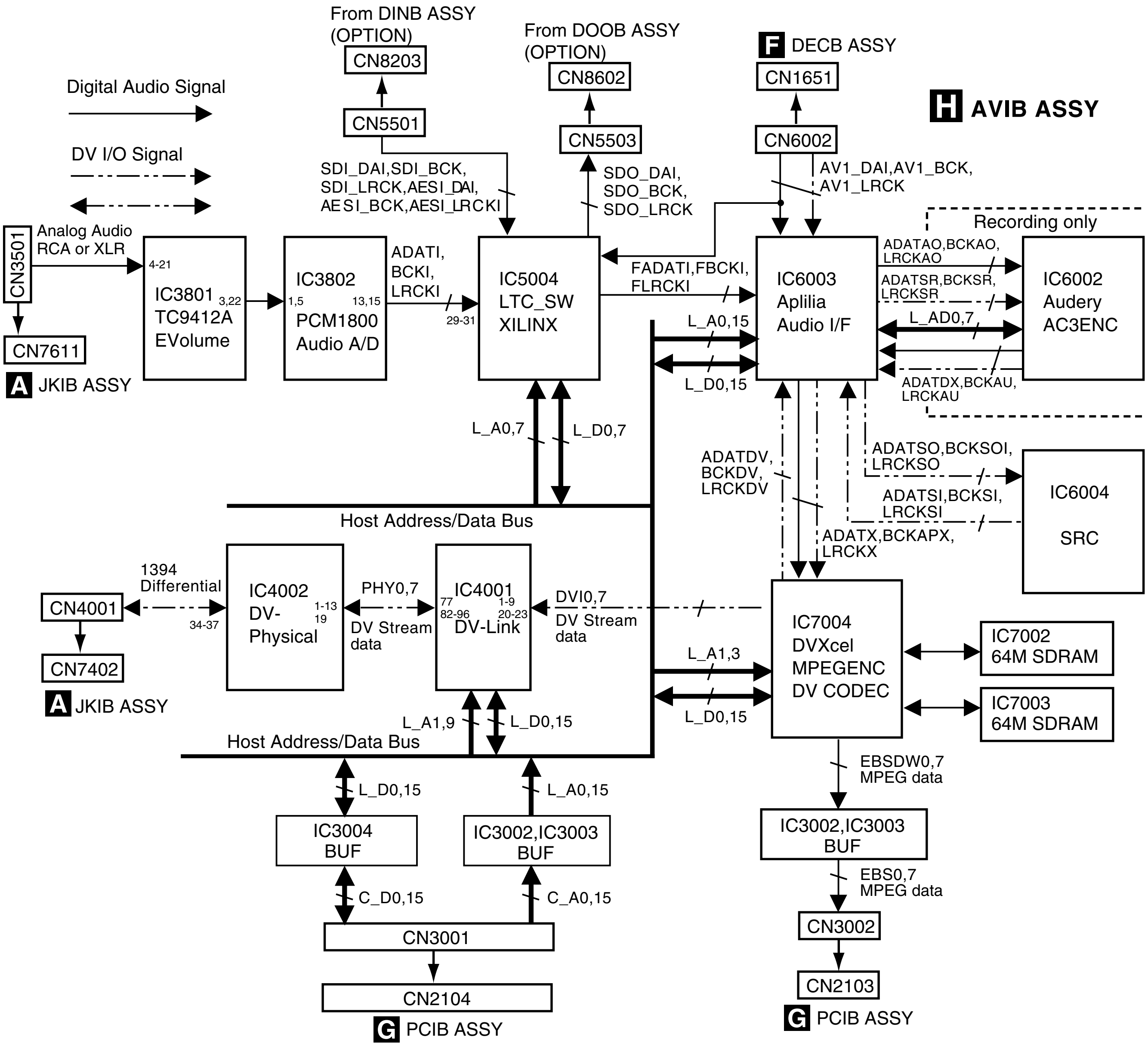
● Video Section


Digital Video Signal
DV I/O Signal
From DINB ASSY (OPTION)
CN8203
CN5501
SDI_D0,7 Video656 data
From DOOB ASSY (OPTION)
CN8602
CN5503
SDO_D0,7 Video656 data
F DECB ASSY
CN1651
CN6002
AVI_D0,7 Video656 data
H AVIB ASSY
CN3501
Analog Video V or Y
Analog Video C
Analog Video Cb
Analog Video Cr
135
120
118
120
IC3501 George Video A/D
12
53-63
R_ADD0,7
Video656 data
15-24
IC5004 LTC_SW XILINX
F_AD0,7
Video656 data
L_A1,9
L_D0,15
IC5002 Vaikilt TBC/DNR
IC5001 64M SDRAM
CN7611
A JKIB ASSY
L_A0,7
L_D0,7
L_A0,7
L_D0,7
D_DVDR0,7 Video656 data
D_DVD0,7 Video656 data
Host Address/Data Bus
1394 Differential
CN4001
CN7402
A JKIB ASSY
34-37
IC4002 DV-Physical
1-13
19
PHY0,7
DV Stream data
77
82-96
IC4001 DV-Link
1-9
20-23
DVI0,7
DV Stream data
L_A1,3
L_D0,15
IC7004 DVXcel MPEGENC DV CODEC
IC7002 64M SDRAM
IC7003 64M SDRAM
L_A1,9
L_D0,15
Host Address/Data Bus
L_D0,15
L_A0,15
IC3004 BUF
IC3002,IC3003 BUF
C_D0,15
C_A0,15
CN3001
CN2104
G PCIB ASSY
EBSDW0,7 MPEG data
IC3002,IC3003 BUF
EBS0,7 MPEG data
CN3002
CN2103
G PCIB ASSY

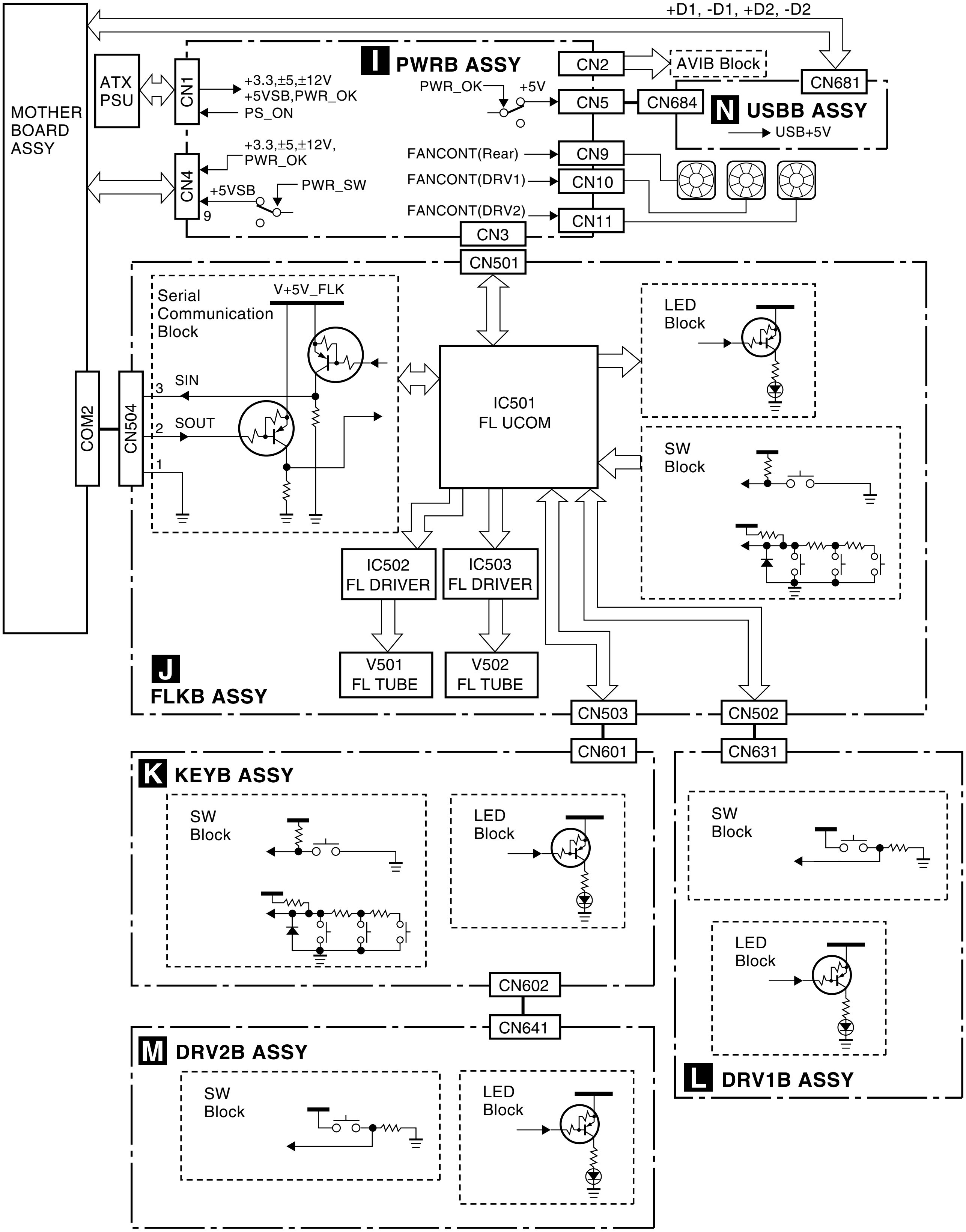
● Clock Oscillation Section


To SDIB
From SDIB
27MHz which was locked with SDI signal
From Vaikilt
PCO
PLL Control Signal
VCXO 27MHz Oscillation Block
7
6
A
B
1
Multiplexer AHC2G53 IC3306
6
IC3308 27MHz BUF
11
2-9
27MHz To each device
6
IC3309 PLL1700 PLL IC
17
13
1,3,5
9,13
IC3310 BUF
2,4,6,8
12.8
18.432MHz To each device
36.864MHz To each device

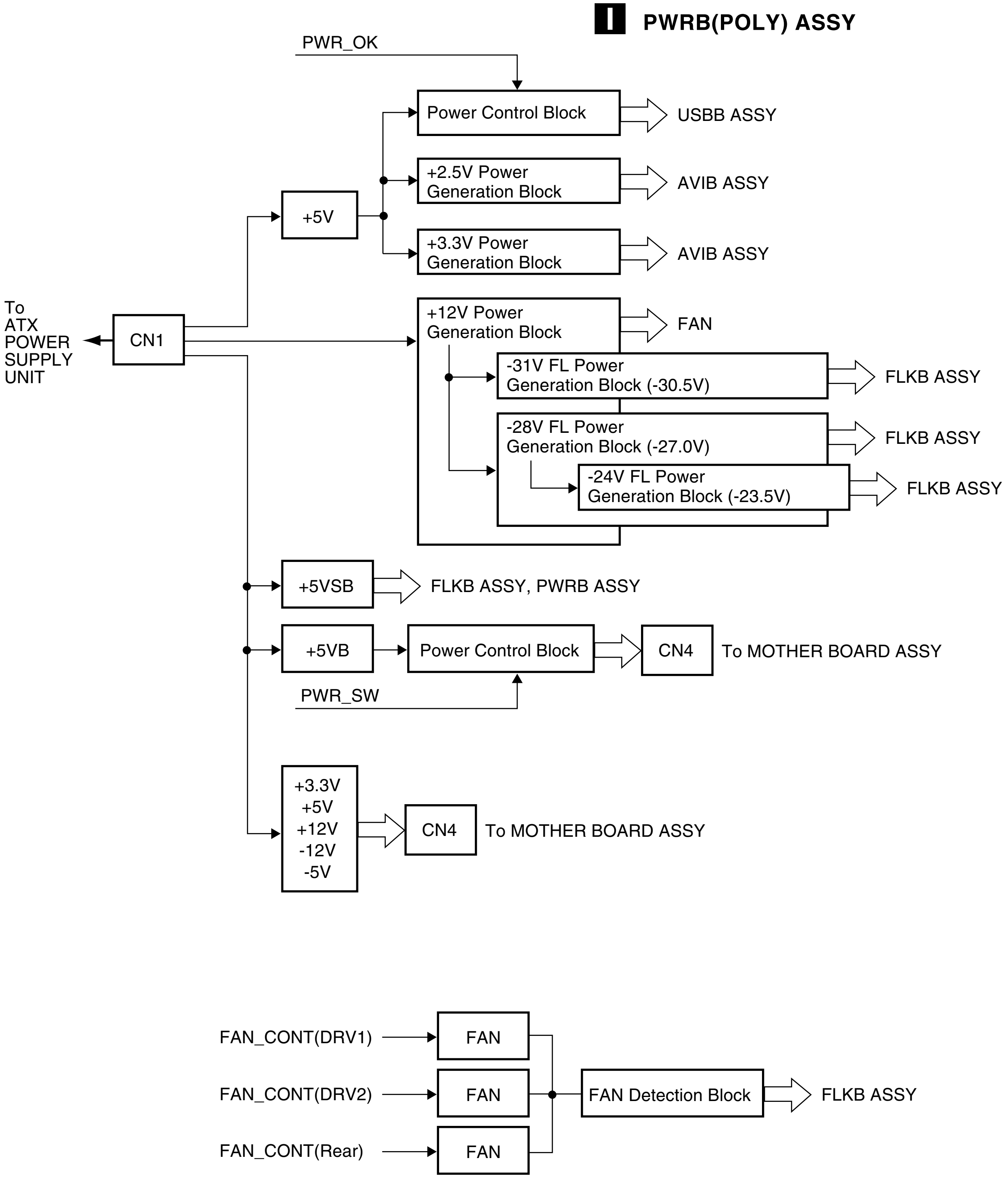
● Audio Section


From DINB ASSY
(OPTION)
CN8203
CN5501
From DOOB ASSY
(OPTION)
CN8602
CN5503
F DECB ASSY
CN1651
CN6002
H AVIB ASSY
Digital Audio Signal
DV I/O Signal
SDI_DAI,SDI_BCK,
SDI_LRCK,AESI_DAI,
AESI_BCK,AESI_LRCKI
SDO_DAI,
SDO_BCK,
SDO_LRCK
AV1_DAI,AV1_BCK,
AV1_LRCK
Recording only
CN3501
Analog Audio
RCA or XLR
4-21
IC3801
TC9412A
EVolume
3,22
1,5
IC3802
PCM1800
Audio A/D
13,15
ADATI,
BCKI,
LRCKI
29-31
IC5004
LTC_SW
XILINX
FADATI,FBCKI,
FLRCKI
IC6003
Aplilia
Audio I/F
ADATAO,BCKAO,
LRCKAO
ADATSR,BCKSR,
LRCKSR
L_AD0,7
ADATDX,BCKAU,
LRCKAU
IC6002
Audery
AC3ENC
CN7611
A JKIB ASSY
L_A0,15
L_D0,15
L_A0,7
L_D0,7
ADATDV,
BCKDV,
LRCKDV
ADATSO,BCKSOI,
LRCKSO
ADATSI,BCKSI,
LRCKSI
IC6004
SRC
ADATX,BCKAPX,
LRCKX
Host Address/Data Bus
1394
Differential
CN4001
34-37
IC4002
DV-
Physical
1-13
19
PHY0,7
DV Stream
data
77
82-96
IC4001
DV-Link
1-9
20-23
DVI0,7
DV Stream
data
IC7004
DVXcel
MPEGENC
DV CODEC
L_A1,3
L_D0,15
IC7002
64M SDRAM
IC7003
64M SDRAM
CN7402
A JKIB ASSY
L_A1,9
L_D0,15
Host Address/Data Bus
L_D0,15
L_A0,15
IC3004
BUF
IC3002,IC3003
BUF
C_D0,15
C_A0,15
CN3001
CN2104
G PCIB ASSY
EBSDW0,7
MPEG data
IC3002,IC3003
BUF
EBS0,7
MPEG data
CN3002
CN2103
G PCIB ASSY

3.1.6 PWRB, FLKB, KEYB, DRV1B, DRV2B and USBB ASSYS


+D1, -D1, +D2, -D2
MOTHER BOARD ASSY
ATX PSU
CN1
+3.3,±5,±12V
+5VSB,PWR_OK
PS_ON
CN4
+3.3,±5,±12V,
PWR_OK
+5VSB
PWR_SW
9
I PWRB ASSY
PWR_OK
+5V
CN2
AVIB Block
CN681
CN5
CN684
N USBB ASSY
USB+5V
FANCONT(Rear)
CN9
FANCONT(DRV1)
CN10
FANCONT(DRV2)
CN11
CN3
CN501
Serial Communication Block
V+5V_FLK
SIN
SOUT
3
2
1
COM2
CN504
IC501
FL UCOM
LED Block
SW Block
IC502
FL DRIVER
IC503
FL DRIVER
V501
FL TUBE
V502
FL TUBE
J FLKB ASSY
CN503
CN502
CN601
CN631
K KEYB ASSY
SW Block
LED Block
SW Block
LED Block
CN602
CN641
M DRV2B ASSY
SW Block
LED Block
L DRV1B ASSY

3.1.7 PWRB ASSY



I PWRB(POLY) ASSY
PWR_OK
Power Control Block
USBB ASSY
+2.5V Power Generation Block
AVIB ASSY
+5V
+3.3V Power Generation Block
AVIB ASSY
To ATX POWER SUPPLY UNIT
CN1
+12V Power Generation Block
FAN
-31V FL Power Generation Block (-30.5V)
FLKB ASSY
-28V FL Power Generation Block (-27.0V)
FLKB ASSY
-24V FL Power Generation Block (-23.5V)
FLKB ASSY
+5VSB
FLKB ASSY, PWRB ASSY
+5VB
Power Control Block
CN4
To MOTHER BOARD ASSY
PWR_SW
+3.3V
+5V
+12V
-12V
-5V
CN4
To MOTHER BOARD ASSY
FAN_CONT(DRV1)
FAN
FAN_CONT(DRV2)
FAN
FAN_CONT(Rear)
FAN
FAN Detection Block
FLKB ASSY

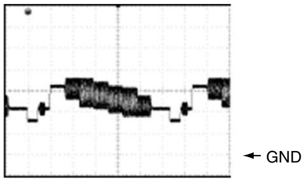
3.1.8 WAVEFORMS

Note : The encircled numbers denote measuring point in the schematic diagram.

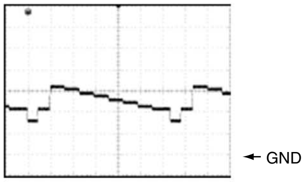
A JKIB ASSY

Measurement condition :
Video input (playback) signal : 75/0/75/0 color-bar (NTSC)
Audio input (playback) signal : 1kHz 0dB

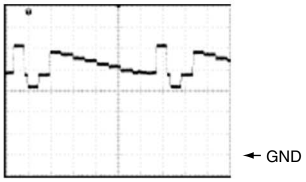
① **IC7409 - pin 7 (CVBS IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



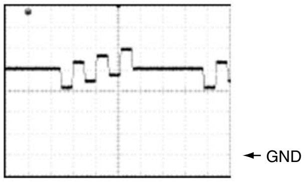
② **IC7409 - pin 7 (S-Y IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



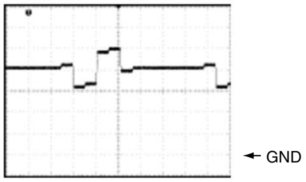
③ **IC7413 - pin 7 (Y (Beta) IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



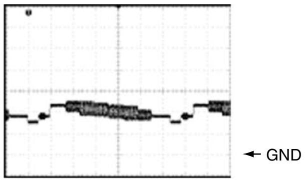
④ **IC7419 - pin 7 (Cb (Beta) IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



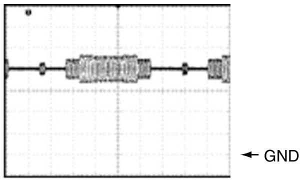
⑤ **IC7420 - pin 7 (Cr (Beta) IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



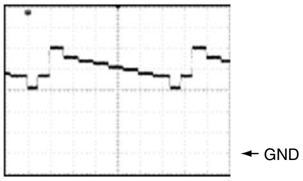
⑥ **IC7404 - pin 7 (CV_THRU IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



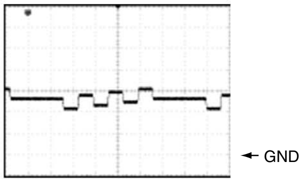
⑦ **IC7403 - pin 7 (S-C IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



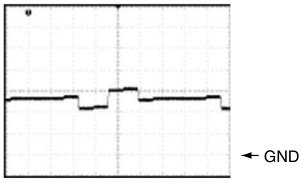
⑧ **IC7413 - pin 1 (Y (SMPTE) IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



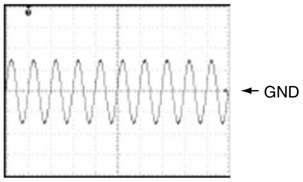
⑨ **IC7419 - pin 1 (Cb (SMPTE) IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



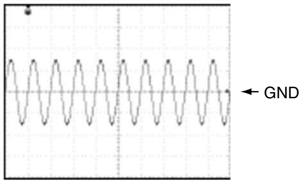
⑩ **IC7420 - pin 1 (Cr (SMPTE) IN)**
V: 1V/div. H: 10μsec/div.
A 1/3



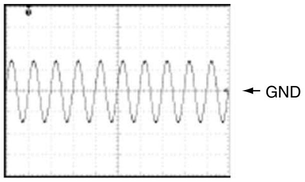
⑪ **IC7613 - pin 1 (RCA_L IN)**
V: 2V/div. H: 1msec/div.
A 2/3



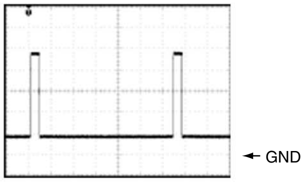
⑫ **IC7613 - pin 7 (L_THRU IN)**
V: 2V/div. H: 1msec/div.
A 2/3



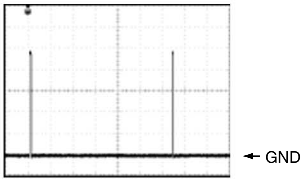
⑬ **IC7621 - pin 1 (XLR_ch1 IN)**
V: 2V/div. H: 1msec/div.
A 2/3



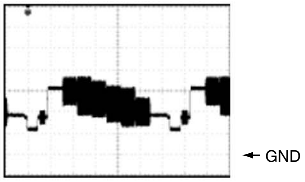
⑭ **IC7401 - pin 3 (C SYNC)**
V: 1V/div. H: 10μsec/div.
A 1/3



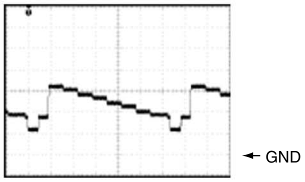
⑮ **IC7402 - pin 5 (SYNC PULS)**
V: 1V/div. H: 10μsec/div.
A 1/3



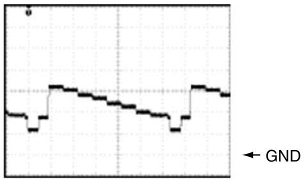
⑯ **IC7803 - pin 33 (CVBS OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3



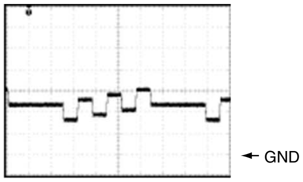
⑰ **IC7803 - pin 28 (S-Y OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3



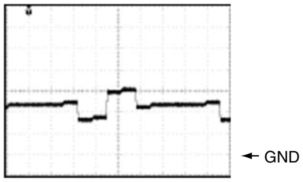
⑱ **IC7803 - pin 25 (Y/G OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3



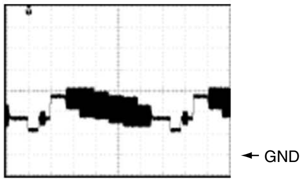
⑲ **IC7803 - pin 23 (Cb/B OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3



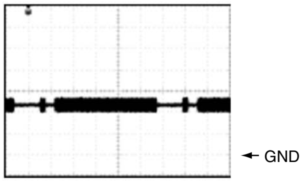
⑳ **IC7803 - pin 21 (Cr/R OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3



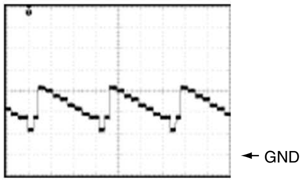
㉑ **IC7803 - pin 33 (CV_THRU OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3



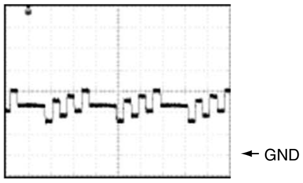
㉒ **IC7803 - pin 31 (S-C OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3



㉓ **IC7803 - pin 25 (Prog Y/G OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3



㉔ **IC7803 - pin 23 (Prog Cb/B OUT)**
V: 1V/div. H: 10μsec/div.
A 3/3

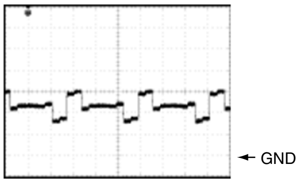


A JKIB ASSY

Measurement condition :
Video input (Recording/Playback) signal: 100/0/75/0 EBU color-bar (PAL)

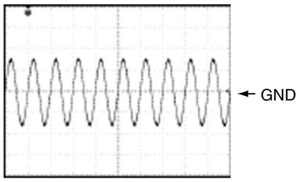
㉕ **IC7803 - pin 21 (Prog Cr/R OUT)**
V: 1V/div. H: 10µsec/div.

A 3/3



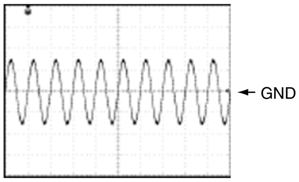
㉖ **IC7703 - pin 7 (RCA_L OUT)**
V: 2V/div. H: 1msec/div.

A 2/3



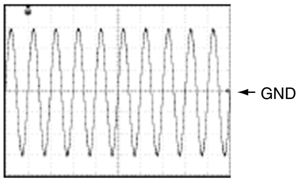
㉗ **IC7703 - pin 7 (L_THRU OUT)**
V: 2V/div. H: 1msec/div.

A 2/3



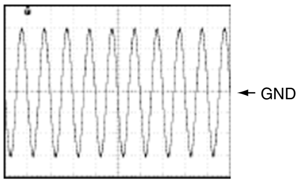
㉘ **IC7709 - pin 1 (XLR_1ch_ H OUT)**
V: 2V/div. H: 1msec/div.

A 2/3



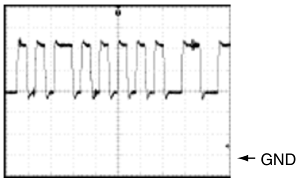
㉙ **IC7709 - pin 7 (XLR_1ch_C OUT)**
V: 2V/div. H: 1msec/div.

A 2/3



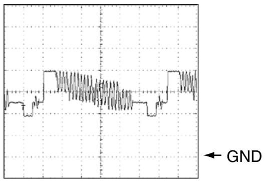
㉚ **CN7802 - pin 29 (SPDIF OUT)**
V: 0.5V/div. H: 400nsec/div.

A 3/3



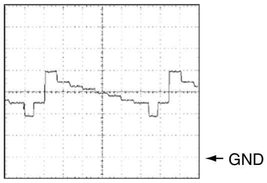
㉛ **IC7409 - pin 7 (CVBS IN)**
V: 1V/div. H: 10µsec/div.

A 1/3



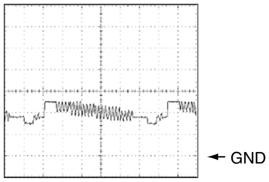
㉜ **IC7409 - pin 7 (S_Y IN)**
V: 1V/div. H: 10µsec/div.

A 1/3



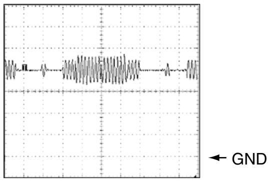
㉝ **IC7404 - pin 7 (CV_THRU IN)**
V: 1V/div. H: 10µsec/div.

A 1/3



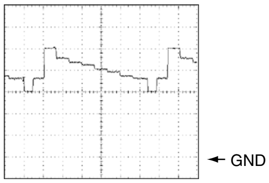
㉞ **IC7403 - pin 7 (S_C IN)**
V: 1V/div. H: 10µsec/div.

A 1/3



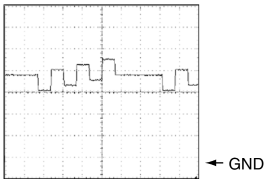
㉟ **IC7413 - pin 1 (Y IN)**
V: 1V/div. H: 10µsec/div.

A 1/3



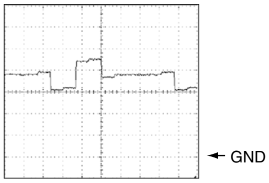
㊱ **IC7419 - pin 1 (Cb IN)**
V: 1V/div. H: 10µsec/div.

A 1/3



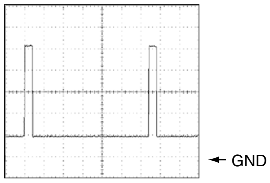
㊲ **IC7420 - pin 1 (Cr IN)**
V: 1V/div. H: 10µsec/div.

A 1/3



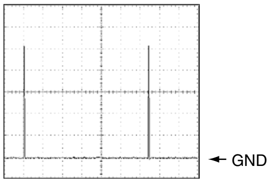
㊳ **IC7401 - pin 3 (C SYNC)**
V: 1V/div. H: 10µsec/div.

A 1/3



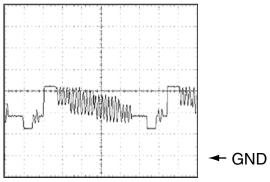
㊴ **IC7402 - pin 5 (SYNC PULS)**
V: 1V/div. H: 10µsec/div.

A 1/3



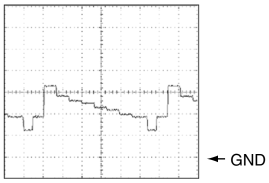
㊵ **IC7803 - pin 33 (CVBS OUT)**
V: 1V/div. H: 10µsec/div.

A 3/3



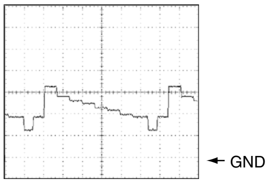
㊶ **IC7803 - pin 28 (S_Y OUT)**
V: 1V/div. H: 10µsec/div.

A 3/3



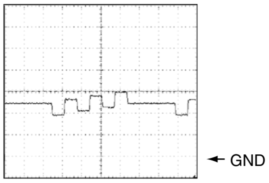
㊷ **IC7803 - pin 25 (Y/G OUT)**
V: 1V/div. H: 10µsec/div.

A 3/3



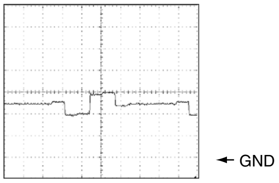
㊸ **IC7803 - pin 23 (Cb/B OUT)**
V: 1V/div. H: 10µsec/div.

A 3/3



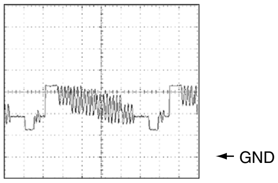
㊹ **IC7803 - pin 21 (Cr/R OUT)**
V: 1V/div. H: 10µsec/div.

A 3/3



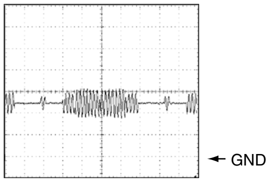
㊺ **IC7803 - pin 33 (CV_THRU OUT)**
V: 1V/div. H: 10µsec/div.

A 3/3



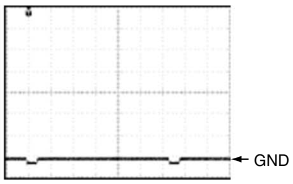
㊻ **IC7803 - pin 31 (S_C OUT)**
V: 1V/div. H: 10µsec/div.

A 3/3

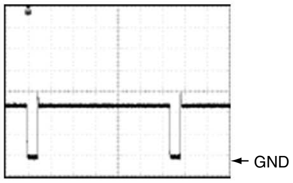


B JKDB ASSY

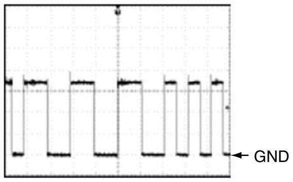
① **JA7941 - pin 5 (BlackBurst IN)**
V: 1V/div. H: 10µsec/div.



② **CN7941 - pin 1 (SIG)**
V: 1V/div. H: 10µsec/div.

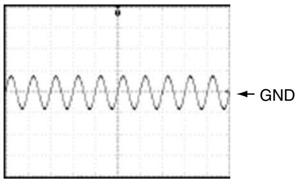


④ **IC7921 - pin 11 (LTC)**
V: 1V/div. H: 400µsec/div.



D HPVB ASSY

① **JA661 - pin 3 (HP_L OUT)**
V: 2V/div. H: 1msec/div.

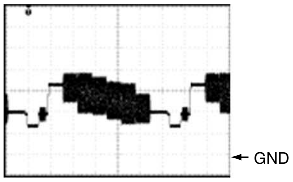


F DECB ASSY

Measurement condition :
Video input (playback) signal : 75/0/75/0 color-bar (NTSC)
Audio input (playback) signal : 1kHz 0dB

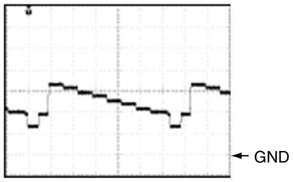
① **CN1811 - pin 8 (CVBS)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



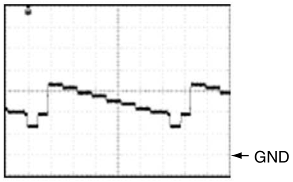
② **CN1811 - pin 12 (S-Y)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



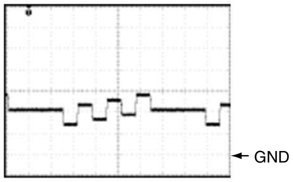
③ **CN1811 - pin 16 (Y)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



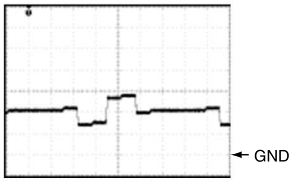
④ **CN1811 - pin 18 (Cb)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



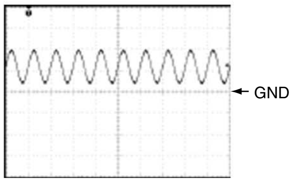
⑤ **CN1811 - pin 20 (Cr)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



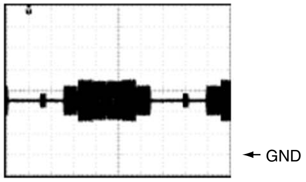
⑥ **CN1611 - pin 23 (Lch)**
V: 2V/div. H: 1msec/div.

F 2/2



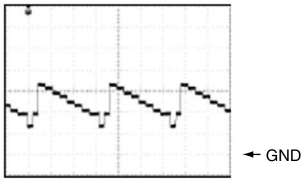
⑦ **CN1811 - pin 10 (S-C)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



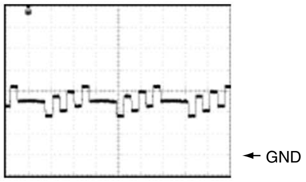
⑧ **CN1811 - pin 16 (Y prog)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



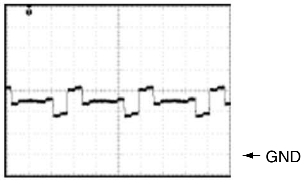
⑨ **CN1811 - pin 18 (Cb prog)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



⑩ **CN1811 - pin 20 (Cr prog)**
V: 0.5V/div. H: 10µsec/div.

F 2/2

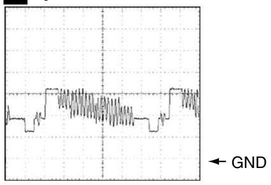


F DECB ASSY

Measurement condition :
Video input (playback) signal :
75/0/75/0 EBU color-bar (PAL)

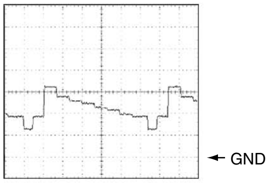
⑪ **CN1811 - pin 8 (CVBS)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



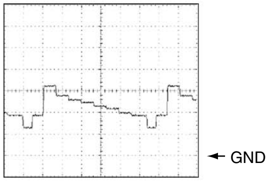
⑫ **CN1811 - pin 12 (S-Y)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



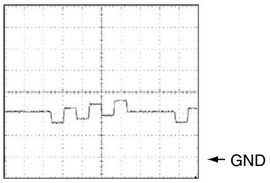
⑬ **CN1811 - pin 16 (Y)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



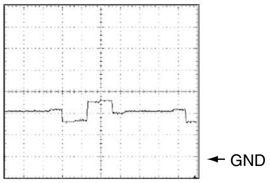
⑭ **CN1811 - pin 18 (Cb)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



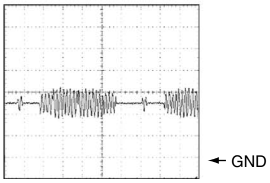
⑮ **CN1811 - pin 20 (Cr)**
V: 0.5V/div. H: 10µsec/div.

F 2/2



⑯ **CN1611 - pin 10 (S-C)**
V: 0.5V/div. H: 10µsec/div.

F 2/2

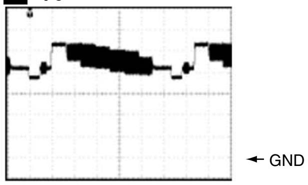


H AVIB ASSY

Measurement condition :
Video input (playback) signal : 75/0/75/0 color-bar (NTSC)
Audio input (playback) signal : 1kHz 0dB

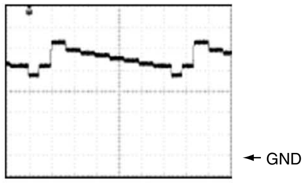
① **CN3501 - pin 7 (CVBS)**
V: 1V/div. H: 10µsec/div.

H 2/6



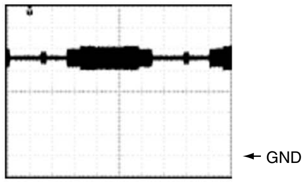
② **CN3501 - pin 7 (S-Y)**
V: 1V/div. H: 10µsec/div.

H 2/6



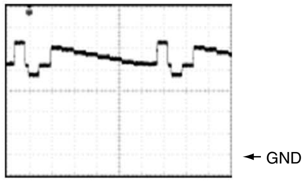
③ **CN3501 - pin 9 (S-C)**
V: 1V/div. H: 10µsec/div.

H 2/6



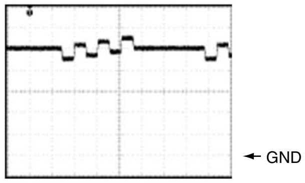
④ **CN3501 - pin 7 (Y beta/SMPTE)**
V: 1V/div. H: 10µsec/div.

H 2/6



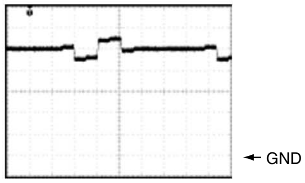
⑤ **CN3501 - pin 11 (Cb Beta/SMPTE)**
V: 1V/div. H: 10µsec/div.

H 2/6



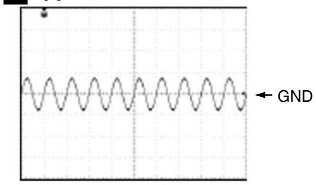
⑥ **CN3501 - pin 13 (Cr Beta/SMPTE)**
V: 1V/div. H: 10µsec/div.

H 2/6



⑦ **CN3502 - pin 2 (Lch)**
V: 2V/div. H: 1msec/div.

H 2/6

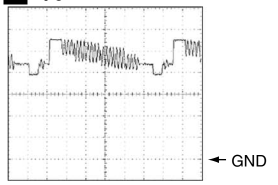


H AVIB ASSY

Measurement condition :
Video input (Recording) signal
100/0/75/0 EBU color-bar (PAL)

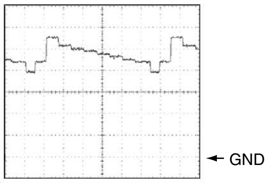
⑧ **CN3501 - pin 7 (CVBS)**
V: 1V/div. H: 10µsec/div.

H 2/6



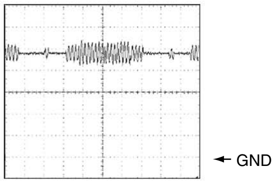
⑨ **CN3501 - pin 7 (S-Y)**
V: 1V/div. H: 10µsec/div.

H 2/6



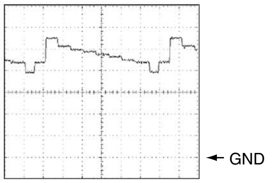
⑩ **CN3501 - pin 9 (S-C)**
V: 1V/div. H: 10µsec/div.

H 2/6



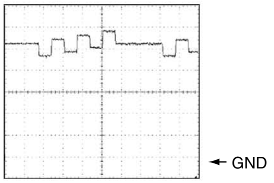
⑪ **CN3501 - pin 7 (Y)**
V: 1V/div. H: 10µsec/div.

H 2/6



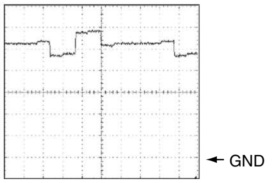
⑫ **CN3501 - pin 11 (Cb)**
V: 1V/div. H: 10µsec/div.

H 2/6



⑬ **CN3501 - pin 13 (Cr)**
V: 1V/div. H: 10µsec/div.

H 2/6



A

B

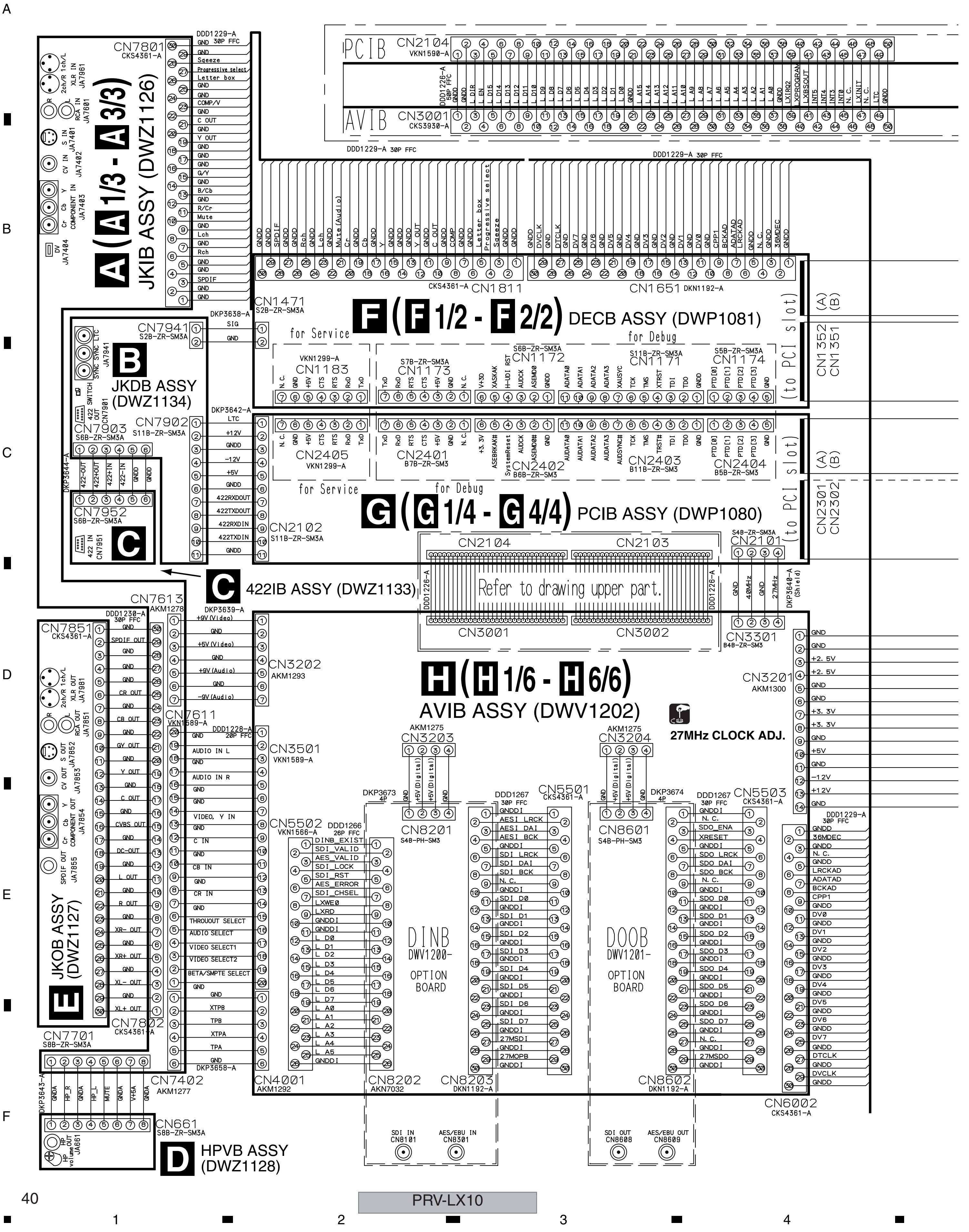
C

D

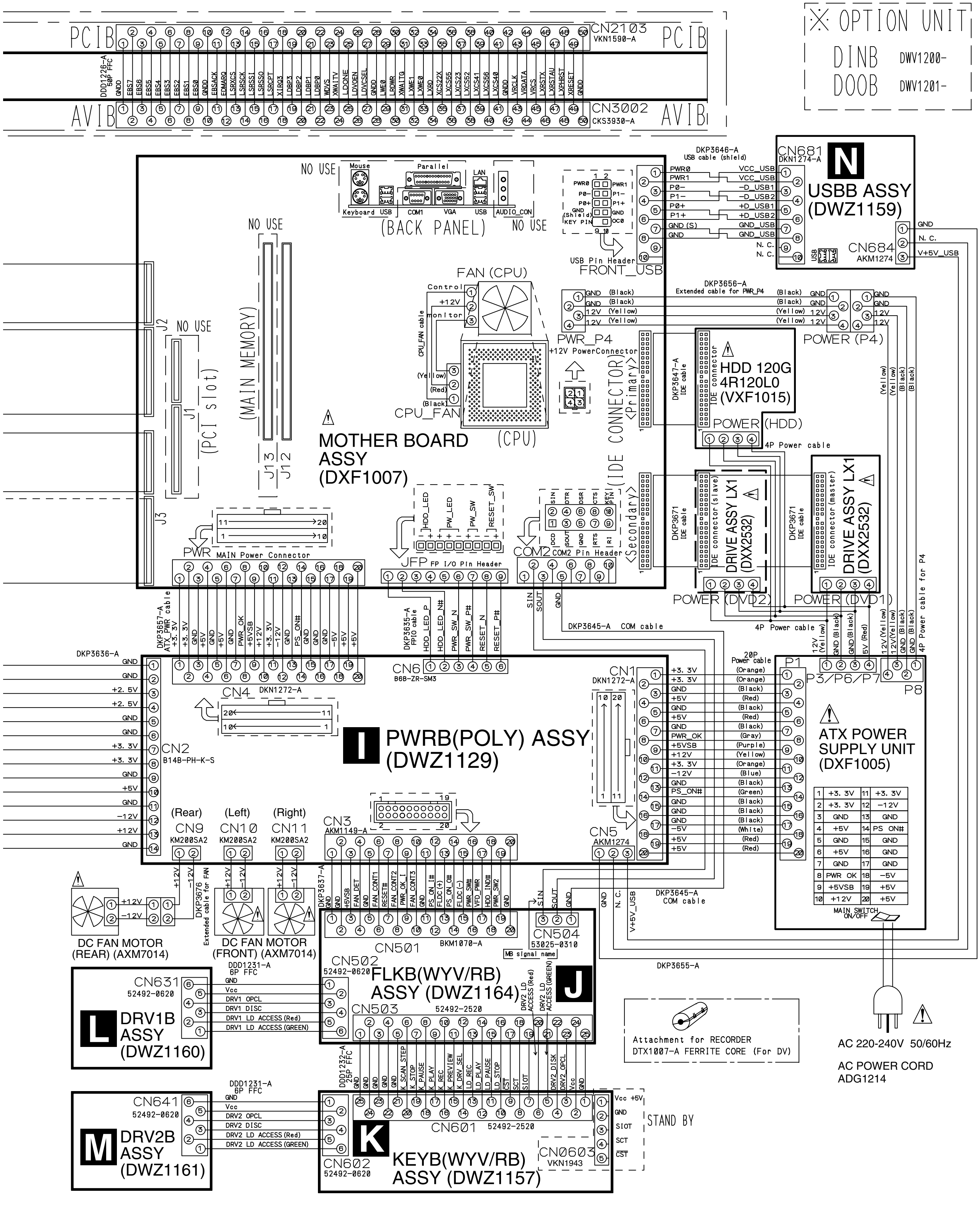
E

F

3.2 OVERALL WIRING DIAGRAM

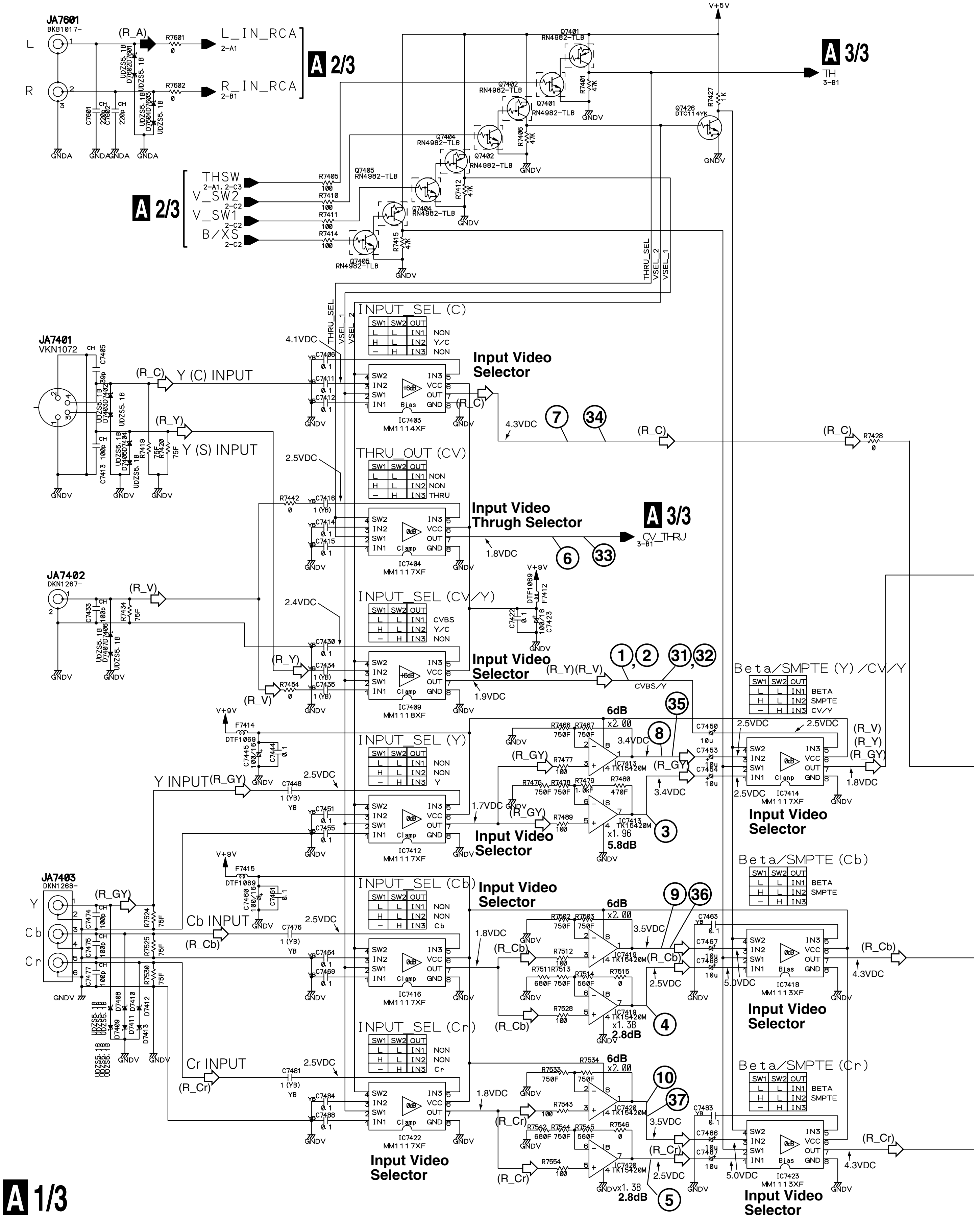

A
B
C
D
E
F
PCIB
CN2104
VKN1590-A
DDD1226-A 50P FFC
AVIB
CN3001
CKS3930-A
DDD1229-A 30P FFC
CN7801
CKS4361-A
A (A 1/3 - A 3/3)
JKIB ASSY (DWZ1126)
F (F 1/2 - F 2/2) DECB ASSY (DWP1081)
CN1811
CKS4361-A
CN1651
DKN1192-A
CN1471
S2B-ZR-SM3A
for Service
for Debug
CN1183
VKN1299-A
CN1173
S7B-ZR-SM3A
CN1172
S6B-ZR-SM3A
CN1171
S11B-ZR-SM3A
CN1174
S5B-ZR-SM3A
CN1352
CN1351
(to PCI slot)
(A)
(B)
CN7941
S2B-ZR-SM3A
DKP3638-A
SIG
GND
B
JKDB ASSY
(DWZ1134)
JA7941
SYNC SYNC LTC
CN7902
S11B-ZR-SM3A
DKP3642-A
LTC
+12V
GNDD
-12V
+5V
GNDD
422RXDOUT
422TXDOUT
422RXDIN
422TXDIN
GND
CN7903
S6B-ZR-SM3A
DKP3644-A
422-OUT
422+OUT
422+IN
422-IN
GNDD
GNDD
CN7952
S6B-ZR-SM3A
C
CN7951
422 IN
G (G 1/4 - G 4/4) PCIB ASSY (DWP1080)
CN2405
VKN1299-A
CN2401
B7B-ZR-SM3
CN2402
B6B-ZR-SM3
CN2403
B11B-ZR-SM3
CN2404
B5B-ZR-SM3
CN2102
S11B-ZR-SM3A
CN2104
CN2103
CN2101
S4B-ZR-SM3A
CN2301
CN2302
Refer to drawing upper part.
C 422IB ASSY (DWZ1133)
DKP3640-A (Shield)
GND
40MHz
GND
27MHz
CN7613
AKM1278
DKP3639-A
+9V (Video)
GND
+5V (Video)
GND
+9V (Audio)
GND
-9V (Audio)
CN3202
AKM1293
CN7851
CKS4361-A
DDD1230-A 30P FFC
H (H 1/6 - H 6/6)
AVIB ASSY (DWV1202)
27MHz CLOCK ADJ.
CN3001
CN3002
CN3301
B4B-ZR-SM3
CN3201
AKM1300
GND
GND
+2.5V
+2.5V
GND
GND
+3.3V
+3.3V
GND
+5V
GND
-12V
+12V
GND
CN7611
VKN1589-A
DDD1228-A 20P FFC
AUDIO IN L
AUDIO IN R
VIDEO, Y IN
C IN
CB IN
CR IN
THROUOUT SELECT
AUDIO SELECT
VIDEO SELECT1
VIDEO SELECT2
BETA/SMPTE SELECT
CN3501
VKN1589-A
CN3203
AKM1275
CN3204
AKM1275
DKP3673 4P
DKP3674 4P
+5V (Digital)
CN8201
S4B-PH-SM3
CN8601
S4B-PH-SM3
CN5502
VKN1566-A
DDD1266 26P FFC
CN5501
CKS4361-A
DDD1267 30P FFC
CN5503
CKS4361-A
DINB
DWV1200-
OPTION BOARD
DOOB
DWV1201-
OPTION BOARD
DDD1229-A 30P FFC
CN6002
CKS4361-A
CN7802
CKS4361-A
E
JKOB ASSY
(DWZ1127)
CN7701
S8B-ZR-SM3A
DKP3643-A
GNDA
HP_R
GNDA
HP_L
MUTE
GNDA
V+5A
GNDA
CN7402
AKM1277
DKP3658-A
GND
XTPB
TPB
XTPA
TPA
GND
CN4001
AKM1292
CN8202
AKN7032
CN8203
DKN1192-A
CN8602
DKN1192-A
CN661
S8B-ZR-SM3A
D
HPVB ASSY
(DWZ1128)
JA661
SDI IN
CN8101
AES/EBU IN
CN8301
SDI OUT
CN8608
AES/EBU OUT
CN8609

Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".


※ OPTION UNIT
DINB DWV1200-
DOOB DWV1201-
PCIB
CN2103 VKN1590-A
DDD1226-A 50P FFC
AVIB
CN3002 CKS3930-A
MOTHER BOARD ASSY (DXF1007)
(BACK PANEL)
NO USE
Mouse
Keyboard
USB
Parallel
COM1
VGA
LAN
AUDIO_CON
(MAIN MEMORY)
(PCI slot)
J1
J2
J3
J12
J13
FAN (CPU)
CPU_FAN
(CPU)
PWR_P4 +12V PowerConnector
USB Pin Header FRONT_USB
(IDE CONNECTOR) <Primary> <Secondary>
PWR MAIN Power Connector
JFP FP I/O Pin Header
COM2 COM2 Pin Header
HDD_LED
PW_LED
PW_SW
RESET_SW
DKP3646-A USB cable (shield)
CN681 DKN1274-A
N USBB ASSY (DWZ1159)
CN684 AKM1274
DKP3656-A Extended cable for PWR_P4
POWER (P4)
DKP3647-A IDE cable
HDD 120G 4R120L0 (VXF1015)
POWER (HDD)
4P Power cable
DKP3671 IDE cable
DRIVE ASSY LX1 (DXX2532)
POWER (DVD2)
POWER (DVD1)
DKP3657-A ATX_PWR cable
DKP3635-A FPIO cable
DKP3645-A COM cable
4P Power cable for P4
DKP3636-A
I PWRB(POLY) ASSY (DWZ1129)
CN2 B14B-PH-K-S
CN4 DKN1272-A
CN6 B6B-ZR-SM3
CN1 DKN1272-A
CN3 AKM1149-A
CN5 AKM1274
(Rear) CN9 KM200SA2
(Left) CN10 KM200SA2
(Right) CN11 KM200SA2
20P Power cable
P1
P3/P6/P7
P8
ATX POWER SUPPLY UNIT (DXF1005)
1 +3.3V 11 +3.3V
2 +3.3V 12 -12V
3 GND 13 GND
4 +5V 14 PS_ON#
5 GND 15 GND
6 +5V 16 GND
7 GND 17 GND
8 PWR_OK 18 -5V
9 +5VSB 19 +5V
10 +12V 20 +5V
MAIN SWITCH ON/OFF
DC FAN MOTOR (REAR) (AXM7014)
DKP3676 Extended cable for FAN
DC FAN MOTOR (FRONT) (AXM7014)
DKP3637-A
CN501 BKM1070-A
CN504 53025-0310
MB signal name
CN502 52492-0620
J FLKB(WYV/RB) ASSY (DWZ1164)
CN503 52492-2520
DKP3655-A
DDD1231-A 6P FFC
CN631 52492-0620
L DRV1B ASSY (DWZ1160)
Attachment for RECORDER DTX1007-A FERRITE CORE (For DV)
AC 220-240V 50/60Hz
AC POWER CORD ADG1214
DDD1232-A 25P FFC
CN641 52492-0620
M DRV2B ASSY (DWZ1161)
CN601 52492-2520
K KEYB(WYV/RB) ASSY (DWZ1157)
CN602 52492-0620
CN0603 VKN1943
STAND BY

3.3 JKIB ASSY (1/3)

A 1/3 JKIB ASSY (DWZ1126)


JA7601
BKB1017-
L
R
(R_A)
R7601 0
R7602 0
L_IN_RCA 2-A1
R_IN_RCA 2-B1
A 2/3
UDZS5.1B D7601 D7602
UDZS5.1B D7603 D7604
C7601 C7602 220p CH
GNDA
V+5V
Q7401 RN4982-TLB
Q7402 RN4982-TLB
Q7404 RN4982-TLB
Q7405 RN4982-TLB
Q7426 DTC114YK
R7401 47K
R7406 47K
R7412 47K
R7415 47K
R7427 1K
A 3/3
TH 3-B1
GNDV
THSW 2-A1, 2-C3
V_SW2 2-C2
V_SW1 2-C2
B/XS 2-C2
R7405 100
R7410 100
R7411 100
R7414 100
THRU_SEL
VSEL_2
VSEL_1
JA7401
VKN1072
C7405 39p
UDZS5.1B D7402 D7403
C7413 100p
UDZS5.1B D7404 D7405
R7419 75F
R7420 75F
(R_C) Y (C) INPUT
(R_Y) Y (S) INPUT
INPUT_SEL (C)
SW1 SW2 OUT
L L IN1 NON
H L IN2 Y/C
– H IN3 NON
4.1VDC
C7406 C7411 C7412 0.1
IC7403 MM1114XF
Input Video Selector
(R_C)
4.3VDC
7
34
(R_C)
R7428 0
THRU_OUT (CV)
L L IN1 NON
H L IN2 NON
– H IN3 THRU
2.5VDC
R7442 0
C7416 1 (YB)
C7414 C7415 0.1
IC7404 MM1117XF
Input Video Thrugh Selector
A 3/3
CV_THRU 3-B1
1.8VDC
6
33
JA7402
DKN1267-
(R_V)
C7433 100p
R7434 75F
UDZS5.1B D7406 D7407
INPUT_SEL (CV/Y)
L L IN1 CVBS
H L IN2 Y/C
– H IN3 NON
2.4VDC
V+9V
DTF1069 F7412
C7422 0.1
C7423 100/16
C7430 0.1
C7434 C7435 1 (YB)
R7454 0
IC7409 MM1118XF
Input Video Selector
(R_Y)(R_V)
1.9VDC
CVBS/Y
1,2
31,32
35
Beta/SMPTE (Y)/CV/Y
L L IN1 BETA
H L IN2 SMPTE
– H IN3 CV/Y
6dB x2.00
R7466 750F R7467 750F
3.4VDC
8
(R_GY)
R7477 100
IC7413 TK15420M
C7450 10u
C7453 10u
C7454 10u
2.5VDC
IC7414 MM1117XF
(R_V) (R_Y) (R_GY)
1.8VDC
Input Video Selector
R7476 750F R7478 750F R7479 1.0KF R7480 470F
R7489 100
x1.96 5.8dB
3
F7414 DTF1069
C7445 100/16
C7444 0.1
INPUT_SEL (Y)
L L IN1 NON
H L IN2 NON
– H IN3 Y
Y INPUT (R_GY)
C7448 1 (YB)
C7451 C7455 0.1
IC7412 MM1117XF
1.7VDC
JA7403
DKN1268-
Y Cb Cr
C7474 C7475 C7477 100p
R7524 R7525 R7530 75F
D7408 D7409 D7410 D7411 D7412 D7413 UDZS5.1B
F7415 DTF1069
C7460 100/16
C7461 0.1
INPUT_SEL (Cb)
L L IN1 NON
H L IN2 NON
– H IN3 Cb
Cb INPUT (R_Cb)
C7476 1 (YB)
C7464 C7469 0.1
IC7416 MM1117XF
Beta/SMPTE (Cb)
L L IN1 BETA
H L IN2 SMPTE
– H IN3
9 36
R7502 750F R7503 750F
3.5VDC
R7512 100
R7511 680F R7513 750F R7514 560F R7515 0
IC7419 TK15420M
R7528 100
x1.38 2.8dB
4
C7463 0.1
C7467 C7468 10u
5.0VDC
IC7418 MM1113XF
4.3VDC
INPUT_SEL (Cr)
L L IN1 NON
H L IN2 NON
– H IN3 Cr
Cr INPUT (R_Cr)
C7481 1 (YB)
C7484 C7488 0.1
IC7422 MM1117XF
Beta/SMPTE (Cr)
L L IN1 BETA
H L IN2 SMPTE
– H IN3
R7533 750F R7534 750F
R7543 100
R7542 680F R7544 750F R7545 560F R7546 0
IC7420 TK15420M
R7554 100
10
37
5
C7483 0.1
C7486 C7487 10u
IC7423 MM1113XF
SW2 IN2 SW1 IN1 IN3 VCC OUT GND Clamp Bias +6dB 0dB
A 1/3

(R_V) ⇨ : Recording Signal Route (Composite Video)

(R_Y) ⇨ : Recording Signal Route (S-Video_Y)

(R_C) ⇨ : Recording Signal Route (S-Video_C)

(R_GY) ⇨ : Recording Signal Route (Component_Y)

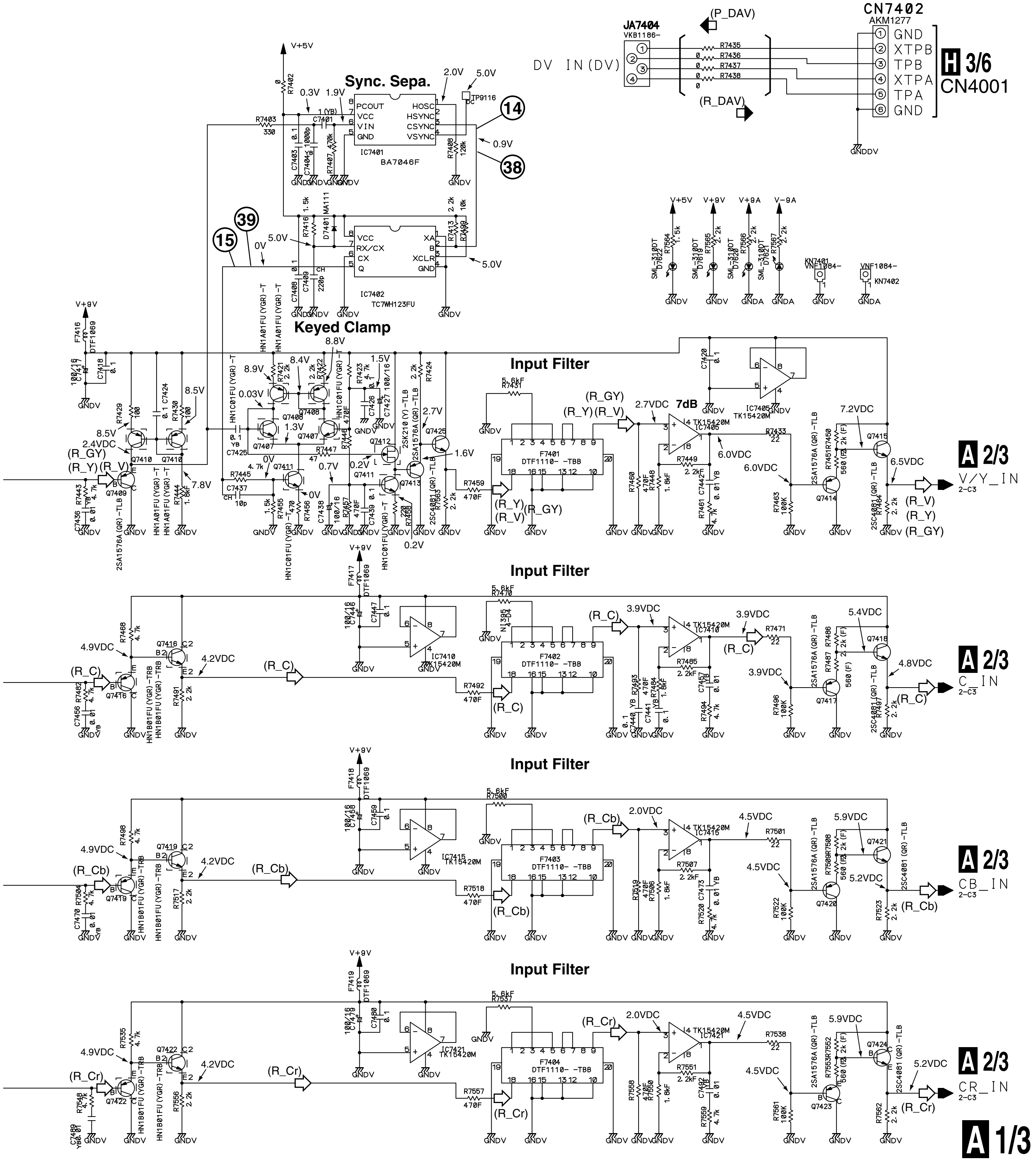
(R_Cb) ⇨ : Recording Signal Route (Component_Cb)

(R_Cr) ⇨ : Recording Signal Route (Component_Cr)

(R_A) ➡ : Recording Signal Route (Analog Audio L ch)

(R_DAV) ➡ : Recording Signal Route (Digital Audio/Video)

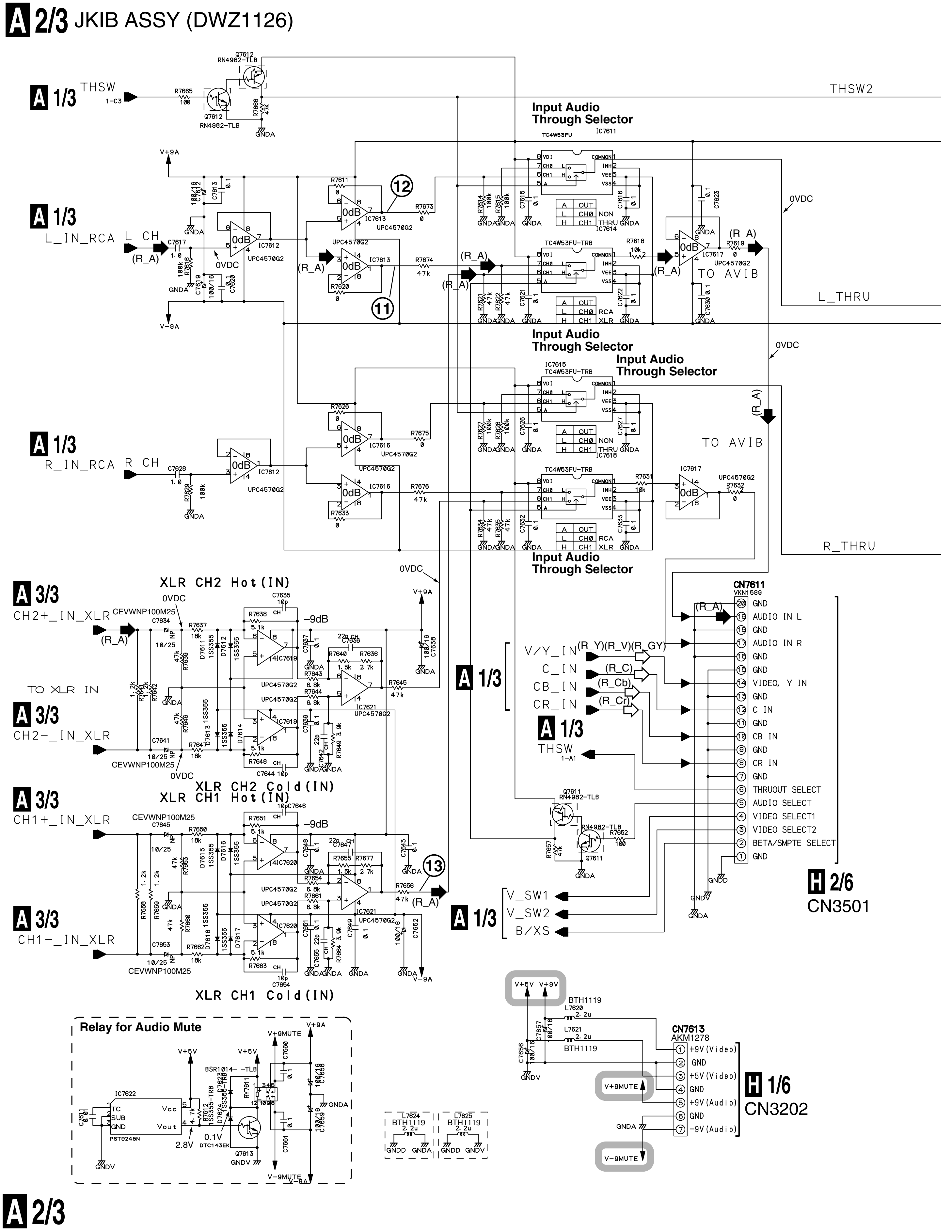
(P_DAV) ➡ : Playback Signal Route (Digital Audio/Video)

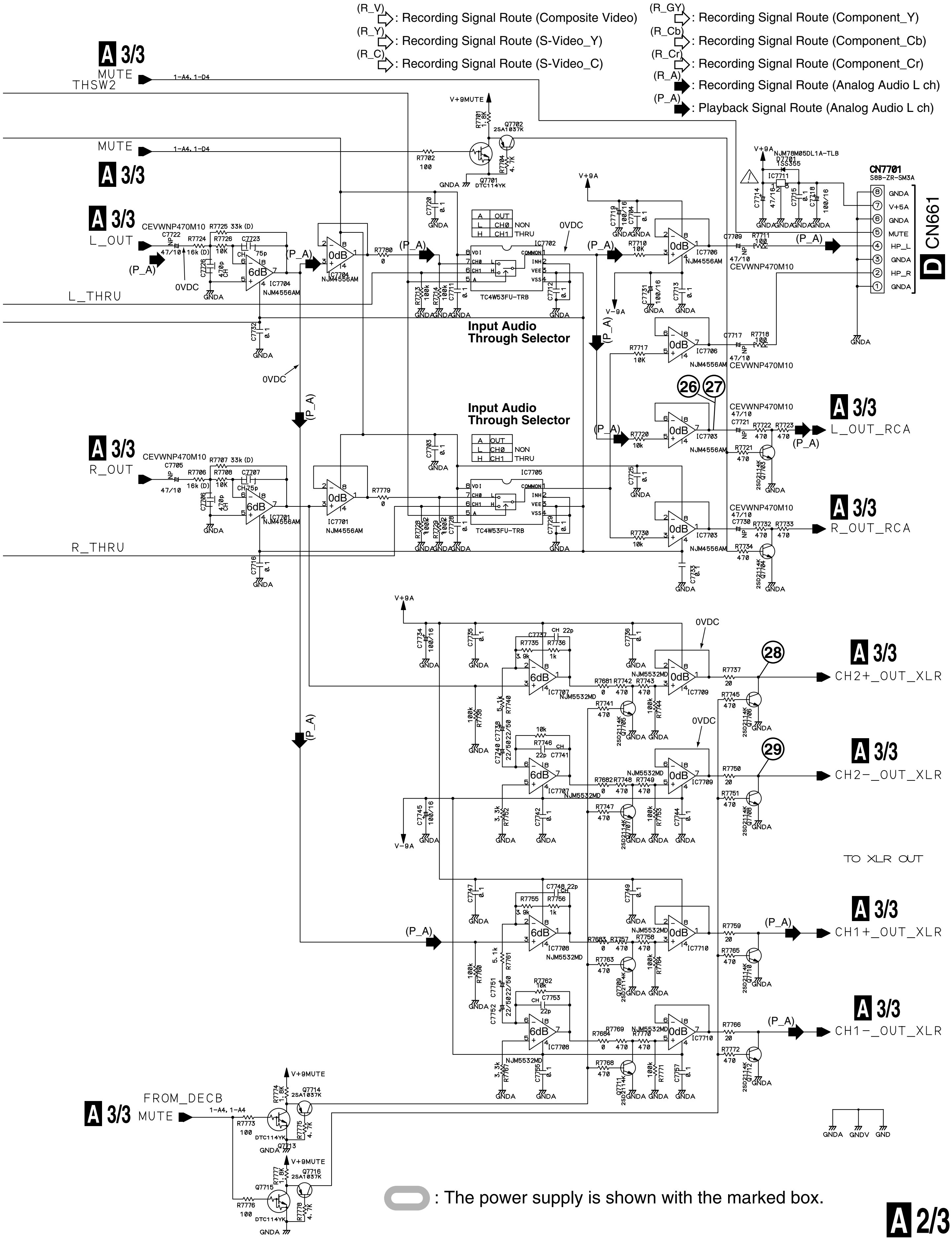


JA7404
VKB1186-
DV IN(DV)
CN7402
AKM1277
GND
XTPB
TPB
XTPA
TPA
GND
H 3/6
CN4001
R7435
R7436
R7437
R7438
GNDDV
Sync. Sepa.
IC7401
BA7046F
PCOUT
VCC
VIN
GND
HOSC
HSYNC
CSYNC
VSYNC
TP9116
14
38
39
15
IC7402
TC7WH123FU
RX/CX
CX
Q
XA
B
XCLR
D7401
MA111
V+5V
V+9V
V+9A
V-9A
KN7401
KN7402
VNF1084-
Keyed Clamp
Input Filter
F7401
DTF1110- -TBB
IC7405
TK15420M
7dB
F7402
IC7410
F7403
IC7415
F7404
IC7421
DTF1069
2SA1576A (QR) -TLB
2SC4081 (QR) -TLB
HN1A01FU (YGR) -T
HN1C01FU (YGR) -T
HN1B01FU (YGR) -TRB
2SK210 (Y) -TLB
A 2/3
V/Y_IN
C_IN
CB_IN
CR_IN
2-C3
GNDV
GNDA

A 1/3

3.4 JKIB ASSY (2/3)


A 2/3 JKIB ASSY (DWZ1126)
A 1/3 THSW 1-C3
Q7612 RN4982-TLB
R7665 100
R7666 47k
GNDA
THSW2
Input Audio Through Selector
TC4W53FU IC7611
TC4W53FU-TRB
IC7614
IC7615
IC7618
V+9A
V-9A
A 1/3 L_IN_RCA L CH
(R_A)
C7617 1.0
R7616 100k
0VDC
IC7612 UPC4570G2
0dB
R7611 0
⑫
⑪
IC7613 UPC4570G2
R7673 0
R7674 47k
R7620 0
A OUT
L CH0 NON
H CH1 THRU
L CH0 RCA
H CH1 XLR
R7618 10k
R7619 0
IC7617 UPC4570G2
TO AVIB
L_THRU
A 1/3 R_IN_RCA R CH
C7628 1.0
R7629 100k
R7626
R7675 0
IC7616 UPC4570G2
R7676 47k
R7633 0
R7631 10k
R7632 0
R_THRU
XLR CH2 Hot(IN)
A 3/3 CH2+_IN_XLR
CEVWNP100M25
C7634
R7637 18k
IC7619 UPC4570G2
-9dB
IC7621 UPC4570G2
R7645 47k
TO XLR IN
A 3/3 CH2-_IN_XLR
XLR CH2 Cold(IN)
XLR CH1 Hot(IN)
A 3/3 CH1+_IN_XLR
IC7620 UPC4570G2
R7656 47k
⑬
A 3/3 CH1-_IN_XLR
XLR CH1 Cold(IN)
1SS355
CN7611 VKN1589
20 GND
19 AUDIO IN L
18 GND
17 AUDIO IN R
16 GND
15 GND
14 VIDEO, Y IN
13 GND
12 C IN
11 GND
10 CB IN
9 GND
8 CR IN
7 GND
6 THRUOUT SELECT
5 AUDIO SELECT
4 VIDEO SELECT1
3 VIDEO SELECT2
2 BETA/SMPTE SELECT
1 GND
H 2/6 CN3501
A 1/3 V/Y_IN (R_Y)(R_V)(R_GY)
C_IN (R_C)
CB_IN (R_Cb)
CR_IN (R_Cr)
A 1/3 THSW 1-A1
Q7611 RN4982-TLB
R7652 100
R7657 47k
A 1/3 V_SW1 V_SW2 B/XS
V+5V V+9V
BTH1119
L7620 2.2u
L7621 2.2u
C7656
C7657
CN7613 AKM1278
1 +9V(Video)
2 GND
3 +5V(Video)
4 GND
5 +9V(Audio)
6 GND
7 -9V(Audio)
H 1/6 CN3202
V+9MUTE
V-9MUTE
GNDV
Relay for Audio Mute
IC7622 PST9245N
TC SUB GND Vcc Vout
2.8V
0.1V
BSR1014- -TLB
RY7611
D7623
D7624 1SS355-TRB
Q7613 DTC143EK
L7624 BTH1119 2.2u GNDD GNDA
L7625 BTH1119 2.2u GNDD GNDV
A 2/3


A 3/3
MUTE
THSW2
1-A4, 1-D4
MUTE
A 3/3
A 3/3
L_OUT
CEVWNP470M10
C7722
47/10
R7724 16k (D)
R7725 33k (D)
R7726 10K
C7723 75p
6dB
IC7704 NJM4556AM
0dB
(P_A)
0VDC
L_THRU
R7780 0
V+9MUTE
R7701 1.8K
Q7702 2SA1037K
R7702 100
R7704 4.7K
Q7701 DTC114YK
GNDA
IC7702 TC4W53FU-TRB
Input Audio Through Selector
A OUT
L CH0 NON
H CH1 THRU
0VDC
V+9A
V-9A
R7710 10K
IC7706 NJM4556AM
C7709 47/10 CEVWNP470M10
R7711 100
C7717
R7718 100
R7717 10K
V+9A
NJM78M05DL1A-TLB
D7701 1SS355
IC7711
C7714 47/16
C7715 0.1
C7718 100/16
CN7701 S8B-ZR-SM3A
8 GNDA
7 V+5A
6 GNDA
5 MUTE
4 HP_L
3 GNDA
2 HP_R
1 GNDA
D CN661
26
27
R7720 10k
IC7703 NJM4556AM
C7721
R7722 470
R7723 470
R7721 470
Q7703 2SD2114K
A 3/3 L_OUT_RCA
A 3/3
R_OUT
CEVWNP470M10
C7705 47/10
R7706 16k (D)
R7707 33k (D)
R7708 10K
C7707 75p
IC7701 NJM4556AM
R7779 0
IC7705 TC4W53FU-TRB
Input Audio Through Selector
R_THRU
R7730 10k
C7730
R7732 470
R7733 470
R7734 470
Q7704 2SD2114K
A 3/3 R_OUT_RCA
V+9A
C7734 100/16
C7735 0.1
C7737 22p
R7735 3.9k
R7736 1k
IC7707 NJM5532MD
IC7709 NJM5532MD
R7681 0
R7742 470
R7743 470
R7737 20
R7745 470
R7741 470
Q7705 2SD2114K
Q7706 2SD2114K
0VDC
28
A 3/3 CH2+_OUT_XLR
R7746 10k
C7741 22p
R7682 0
R7748 470
R7749 470
R7750 20
R7751 470
R7747 470
Q7707 2SD2114K
Q7708 2SD2114K
29
A 3/3 CH2−_OUT_XLR
V-9A
C7745 100/16
TO XLR OUT
C7748 22p
R7755 3.9k
R7756 1k
IC7708 NJM5532MD
IC7710 NJM5532MD
R7683 0
R7757 470
R7758 470
R7759 20
R7765 470
R7763 470
Q7709 2SD2114K
Q7710 2SD2114K
A 3/3 CH1+_OUT_XLR
R7762 10k
C7753 22p
R7684 0
R7769 470
R7770 470
R7766 20
R7772 470
R7768 470
Q7711 2SD2114K
Q7712 2SD2114K
A 3/3 CH1−_OUT_XLR
A 3/3
FROM_DECB
MUTE
1-A4, 1-A4
R7773 100
R7774 1.8K
Q7714 2SA1037K
R7775 4.7K
DTC114YK
Q7713
R7777 1.8K
Q7716 2SA1037K
Q7715
R7776 100
R7778 4.7K
GNDA GNDV GND

(R_V): Recording Signal Route (Composite Video)
(R_Y): Recording Signal Route (S-Video_Y)
(R_C): Recording Signal Route (S-Video_C)
(R_GY): Recording Signal Route (Component_Y)
(R_Cb): Recording Signal Route (Component_Cb)
(R_Cr): Recording Signal Route (Component_Cr)
(R_A): Recording Signal Route (Analog Audio L ch)
(P_A): Playback Signal Route (Analog Audio L ch)

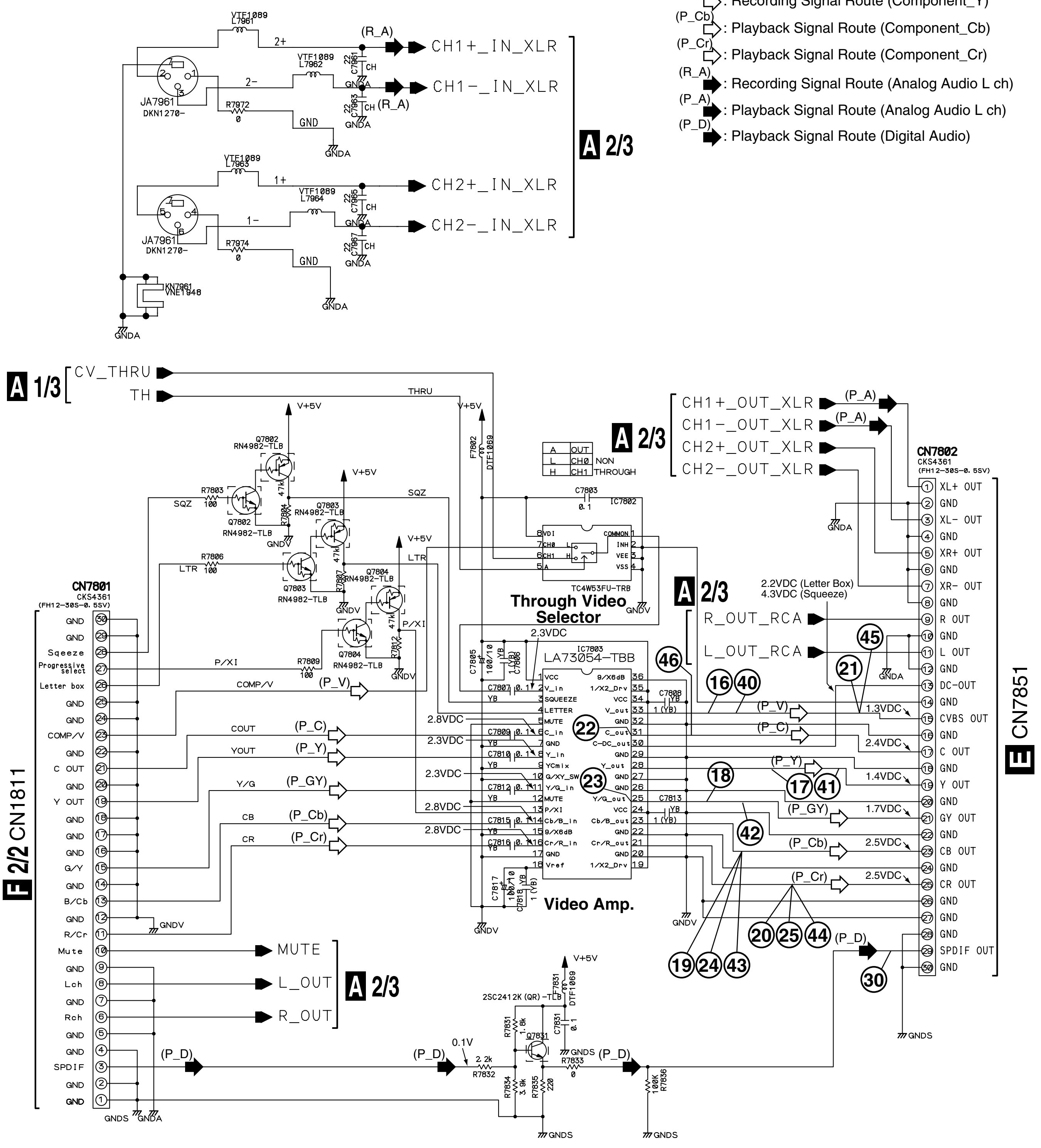
: The power supply is shown with the marked box.

A 2/3

3.5 JKIB ASSY (3/3)

A 3/3 JKIB ASSY (DWZ1126)

(P_V) ⇨ : Playback Signal Route (Composite Video)
(P_Y) ⇨ : Playback Signal Route (S-Video_Y)
(P_C) ⇨ : Playback Signal Route (S-Video_C)
(P_GY) ⇨ : Recording Signal Route (Component_Y)
(P_Cb) ⇨ : Playback Signal Route (Component_Cb)
(P_Cr) ⇨ : Playback Signal Route (Component_Cr)
(R_A) ➡ : Recording Signal Route (Analog Audio L ch)
(P_A) ➡ : Playback Signal Route (Analog Audio L ch)
(P_D) ➡ : Playback Signal Route (Digital Audio)



VTF1089
L7961
2+
(R_A)
CH1+_IN_XLR
VTF1089
L7962
2-
C7961
CH
GNDA
CH1-_IN_XLR
C7963
(R_A)
JA7961
DKN1270-
R7972
0
GND
GNDA
A 2/3
VTF1089
L7963
1+
VTF1089
L7964
C7965
CH2+_IN_XLR
1-
CH2-_IN_XLR
C7967
JA7961
DKN1270-
R7974
0
GND
KN7961
VNE1948
GNDA
A 1/3
CV_THRU
TH
THRU
V+5V
Q7802
RN4982-TLB
R7803
100
SQZ
47k
R7804
Q7802
RN4982-TLB
V+5V
SQZ
Q7803
RN4982-TLB
GNDV
R7806
LTR
100
47k
R7807
Q7803
RN4982-TLB
Q7804
RN4982-TLB
V+5V
LTR
P/XI
47k
R7812
Q7804
RN4982-TLB
GNDV
F7802
DTF1069
A OUT
L CH0 NON
H CH1 THROUGH
C7803
0.1
IC7802
VDI
CH0
CH1
A
COMMON
INH
VEE
VSS
TC4W53FU-TRB
Through Video Selector
GNDV
A 2/3
CH1+_OUT_XLR
(P_A)
CH1-_OUT_XLR
(P_A)
CH2+_OUT_XLR
CH2-_OUT_XLR
GNDA
CN7801
CKS4361
(FH12-30S-0.5SV)
GND
GND
Sqeeze
Progressive select
Letter box
GND
GND
COMP/V
GND
C OUT
GND
Y OUT
GND
GND
GND
G/Y
GND
B/Cb
GND
R/Cr
Mute
GND
Lch
GND
Rch
GND
GND
SPDIF
GND
GND
F 2/2 CN1811
GNDV
P/XI
R7809
100
COMP/V
(P_V)
COUT
(P_C)
YOUT
(P_Y)
Y/G
(P_GY)
CB
(P_Cb)
CR
(P_Cr)
C7805
100/10
C7806
2.3VDC
IC7803
LA73054-TBB
VCC
V_in
SQUEEZE
LETTER
MUTE
C_in
GND
Y_in
YCmix
G/XY_SW
Y/G_in
MUTE
P/XI
Cb/B_in
8/X6dB
Cr/R_in
GND
Vref
8/X6dB
1/X2_Drv
VCC
V_out
GND
C_out
C-DC_out
GND
Y_out
GND
GND
Y/G_out
VCC
Cb/B_out
GND
Cr/R_out
GND
1/X2_Drv
C7807 0.1
C7809 0.1
C7810 0.1
C7812 0.1
C7815 0.1
C7816 0.1
2.8VDC
2.3VDC
2.3VDC
2.8VDC
2.8VDC
C7817
100/10
C7818
1 (YB)
C7808
C7813
Video Amp.
GNDV
46
22
23
16
40
18
42
19
24
43
20
25
44
21
45
17
41
30
A 2/3
R_OUT_RCA
L_OUT_RCA
2.2VDC (Letter Box)
4.3VDC (Squeeze)
(P_V)
(P_C)
(P_Y)
(P_GY)
(P_Cb)
(P_Cr)
(P_D)
1.3VDC
2.4VDC
1.4VDC
1.7VDC
2.5VDC
2.5VDC
CN7802
CKS4361
(FH12-30S-0.5SV)
XL+ OUT
GND
XL- OUT
GND
XR+ OUT
GND
XR- OUT
GND
R OUT
GND
L OUT
GND
DC-OUT
GND
CVBS OUT
GND
C OUT
GND
Y OUT
GND
GY OUT
GND
CB OUT
GND
CR OUT
GND
GND
GND
SPDIF OUT
GND
E CN7851
GNDS
MUTE
L_OUT
R_OUT
A 2/3
V+5V
F7831
DTF1069
C7831
0.1
2SC2412K (QR)-TLB
R7831
1.8k
Q7831
0.1V
(P_D)
(P_D)
(P_D)
2.2k
R7832
R7834
3.9k
R7835
220
R7833
0
100K
R7836
GNDS
GNDS
GNDS
GNDS GNDA

A 3/3

A

B

C

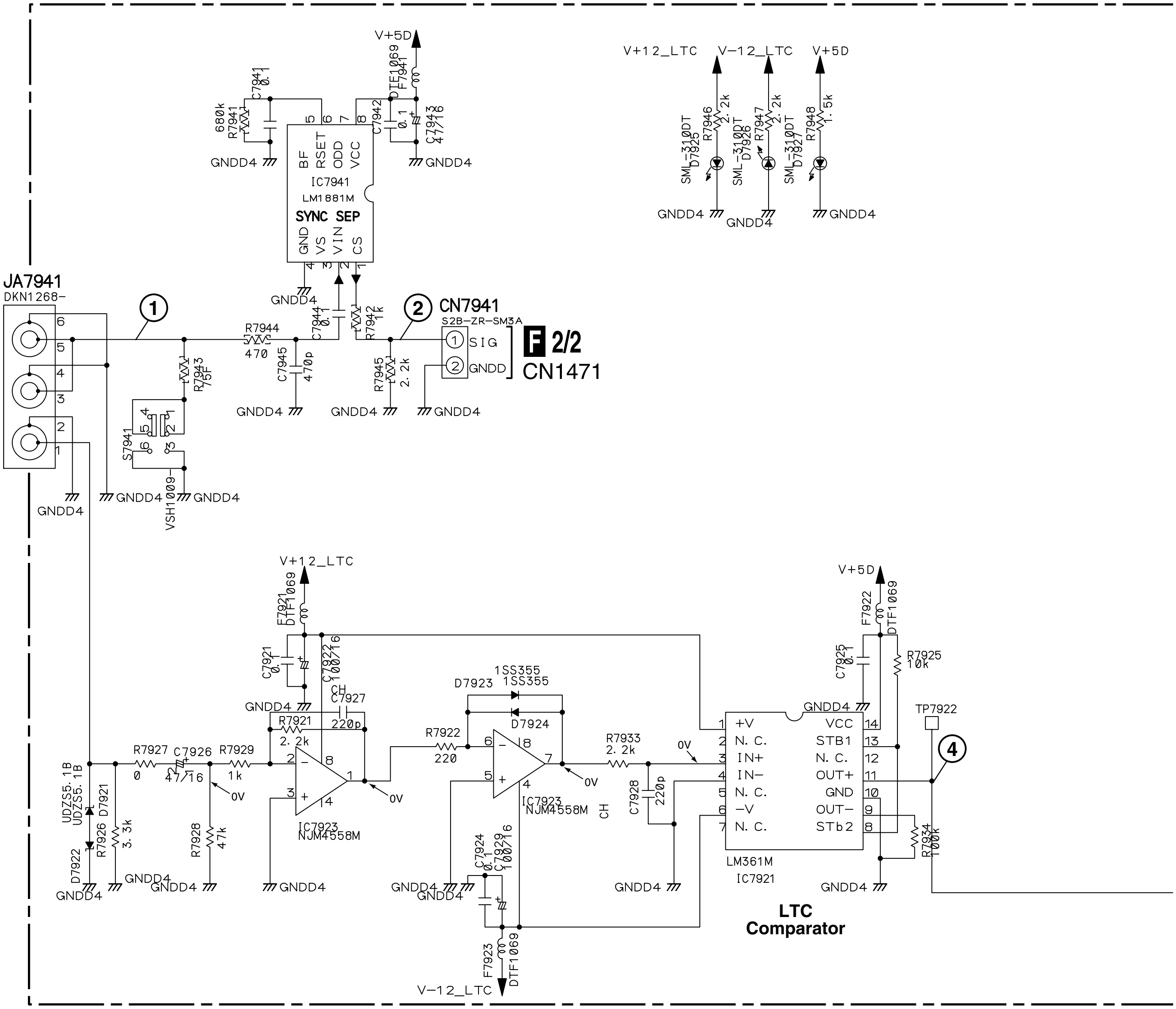
D

E

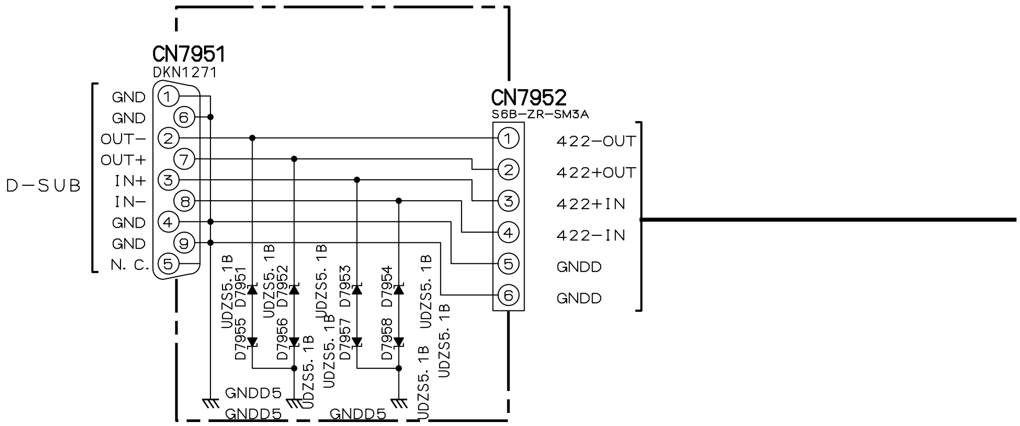
F

3.6 JKDB and 422IB ASSYS

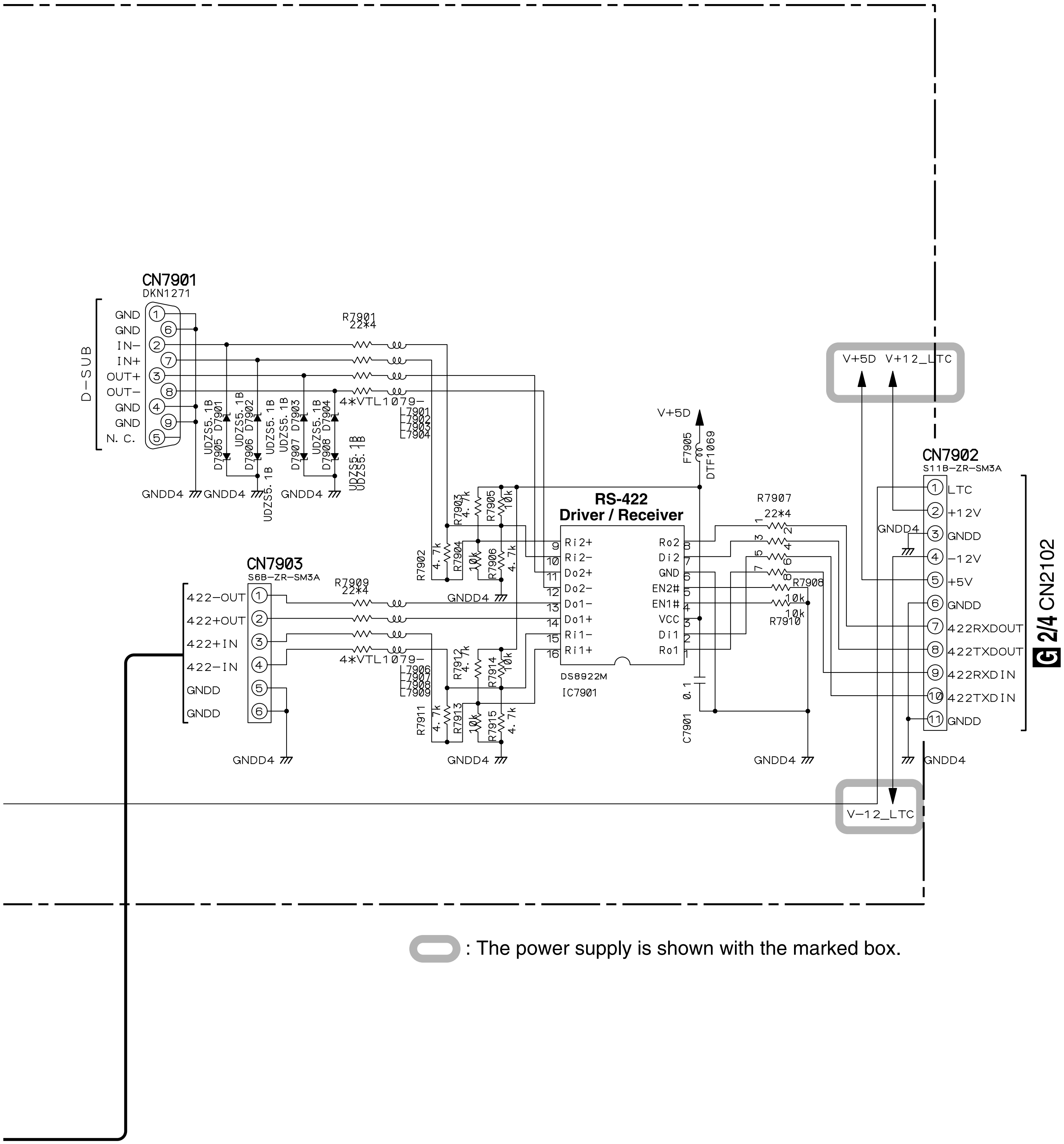
B JKDB ASSY (DWZ1134)


V+5D
DTF1069
F7941
C7941 0.1
680k R7941
GNDD4
BF RSET ODD VCC
IC7941
LM1881M
SYNC SEP
GND VS VIN CS
C7942 0.1
C7943 47/16
V+12_LTC V−12_LTC V+5D
R7946 2.2k
R7947 2.2k
R7948 1.5k
SML-310DT D7925
SML-310DT D7926
SML-310DT D7927
JA7941
DKN1268-
①
②
CN7941
S2B-ZR-SM3A
SIG
GNDD
F 2/2
CN1471
R7944 470
C7944 0.1
C7945 470p
R7942 1k
R7945 2.2k
R7943 75F
S7941
VSH1009-
V+12_LTC
F7921 DTF1069
C7921 0.1
C7922 100/16
CH
C7927 220p
R7921 2.2k
R7927 0
C7926 47/16
R7929 1k
0V
R7928 47k
UDZS5.1B D7921
UDZS5.1B D7922
R7926 3.3k
IC7923 NJM4558M
D7923 1SS355
D7924 1SS355
R7922 220
R7933 2.2k
C7928 220p
C7924 0.1
C7929 100/16
F7923 DTF1069
V−12_LTC
F7922 DTF1069
C7925 0.1
R7925 10k
TP7922
④
+V VCC
N. C. STB1
IN+ N. C.
IN− OUT+
N. C. GND
−V OUT−
N. C. STb2
LM361M
IC7921
R7934 100k
LTC
Comparator

C 422IB ASSY (DWZ1133)


CN7951
DKN1271
GND
GND
OUT−
OUT+
IN+
IN−
GND
GND
N. C.
D-SUB
CN7952
S6B-ZR-SM3A
422−OUT
422+OUT
422+IN
422−IN
GNDD
GNDD
UDZS5.1B D7951
UDZS5.1B D7952
UDZS5.1B D7953
UDZS5.1B D7954
UDZS5.1B D7955
UDZS5.1B D7956
UDZS5.1B D7957
UDZS5.1B D7958
GNDD5

B C

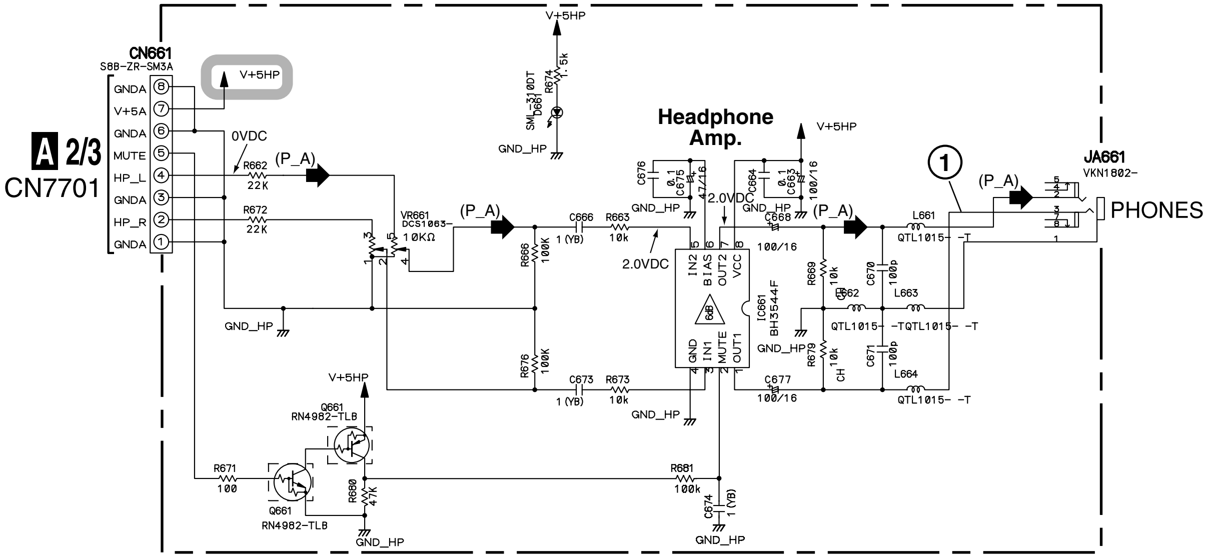


CN7901
DKN1271
D−SUB
GND ①
GND ⑥
IN− ②
IN+ ⑦
OUT+ ③
OUT− ⑧
GND ④
GND ⑨
N. C. ⑤
R7901
22*4
4*VTL1079−
L7901
L7902
L7903
L7904
UDZS5.1B D7901
UDZS5.1B D7902
UDZS5.1B D7903
UDZS5.1B D7904
D7905 UDZS5.1B
D7906 UDZS5.1B
D7907 UDZS5.1B
D7908 UDZS5.1B
GNDD4
V+5D
F7905
DTF1069
RS-422
Driver / Receiver
R7902 4.7k
R7903 4.7k
R7904 10k
R7905 10k
R7906 10k
4.7k
Ri2+ 9
Ri2− 10
Do2+ 11
Do2− 12
Do1− 13
Do1+ 14
Ri1− 15
Ri1+ 16
Ro2 8
Di2 7
GND 6
EN2# 5
EN1# 4
VCC 3
Di1 2
Ro1 1
DS8922M
IC7901
C7901
0.1
R7907
22*4
R7908
10k
R7910
10k
CN7903
S6B−ZR−SM3A
422−OUT ①
422+OUT ②
422+IN ③
422−IN ④
GNDD ⑤
GNDD ⑥
R7909
22*4
4*VTL1079−
L7906
L7907
L7908
L7909
R7911 4.7k
R7912 4.7k
R7913 10k
R7914 10k
R7915 4.7k
CN7902
S11B−ZR−SM3A
① LTC
② +12V
③ GNDD
④ −12V
⑤ +5V
⑥ GNDD
⑦ 422RXDOUT
⑧ 422TXDOUT
⑨ 422RXDIN
⑩ 422TXDIN
⑪ GNDD
G 2/4 CN2102
V+5D
V+12_LTC
V−12_LTC

▭ : The power supply is shown with the marked box.

3.7 HPVB and JKOB ASSYS

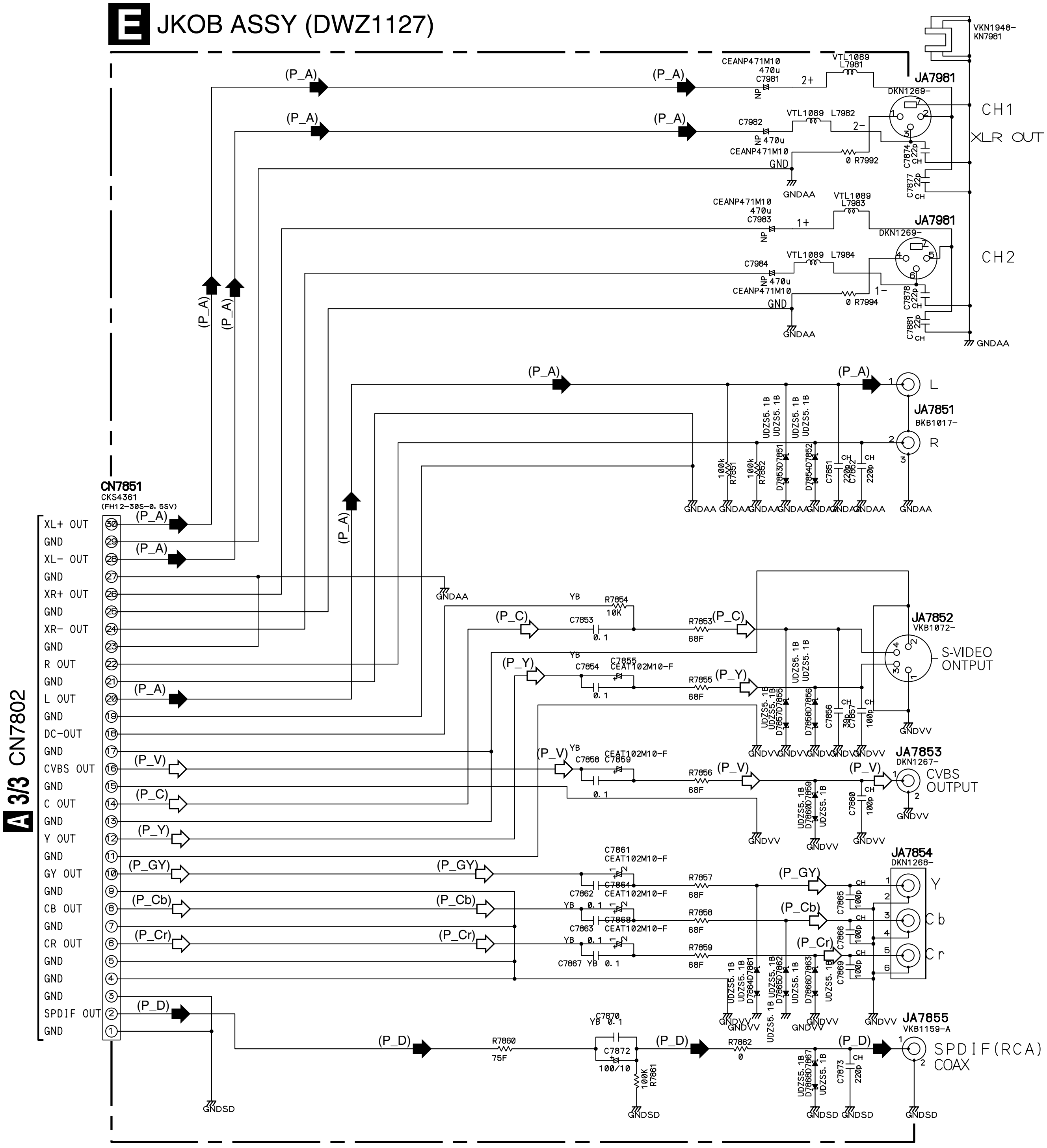
D HPVB ASSY (DWZ1128)


A 2/3
CN7701
CN661
S8B-ZR-SM3A
GNDA 8
V+5A 7
GNDA 6
MUTE 5
HP_L 4
GNDA 3
HP_R 2
GNDA 1
V+5HP
0VDC
R662 22K
R672 22K
(P_A)
VR661 DCS1063- 10KΩ
GND_HP
V+5HP
R674 1.5k
D661 SML-310DT
Headphone Amp.
C676 0.1
C675 47/16
C664 0.1
C663 100/16
2.0VDC
C666 1 (YB)
R663 10k
R666 100K
R676 100K
C673 1 (YB)
R673 10k
2.0VDC
IC661 BH3544F
IN2 BIAS OUT2 VCC
GND IN1 MUTE OUT1
C668 100/16
C677 100/16
R669 10k
R679 10k
CH
L662
L661 QTL1015- -T
L663 QTL1015- -T
L664 QTL1015- -T
C670 100p
C671 100p
①
JA661
VKN1802-
PHONES
Q661 RN4982-TLB
R671 100
R680 47K
R681 100k
C674 1 (YB)

▭ : The power supply is shown with the marked box.

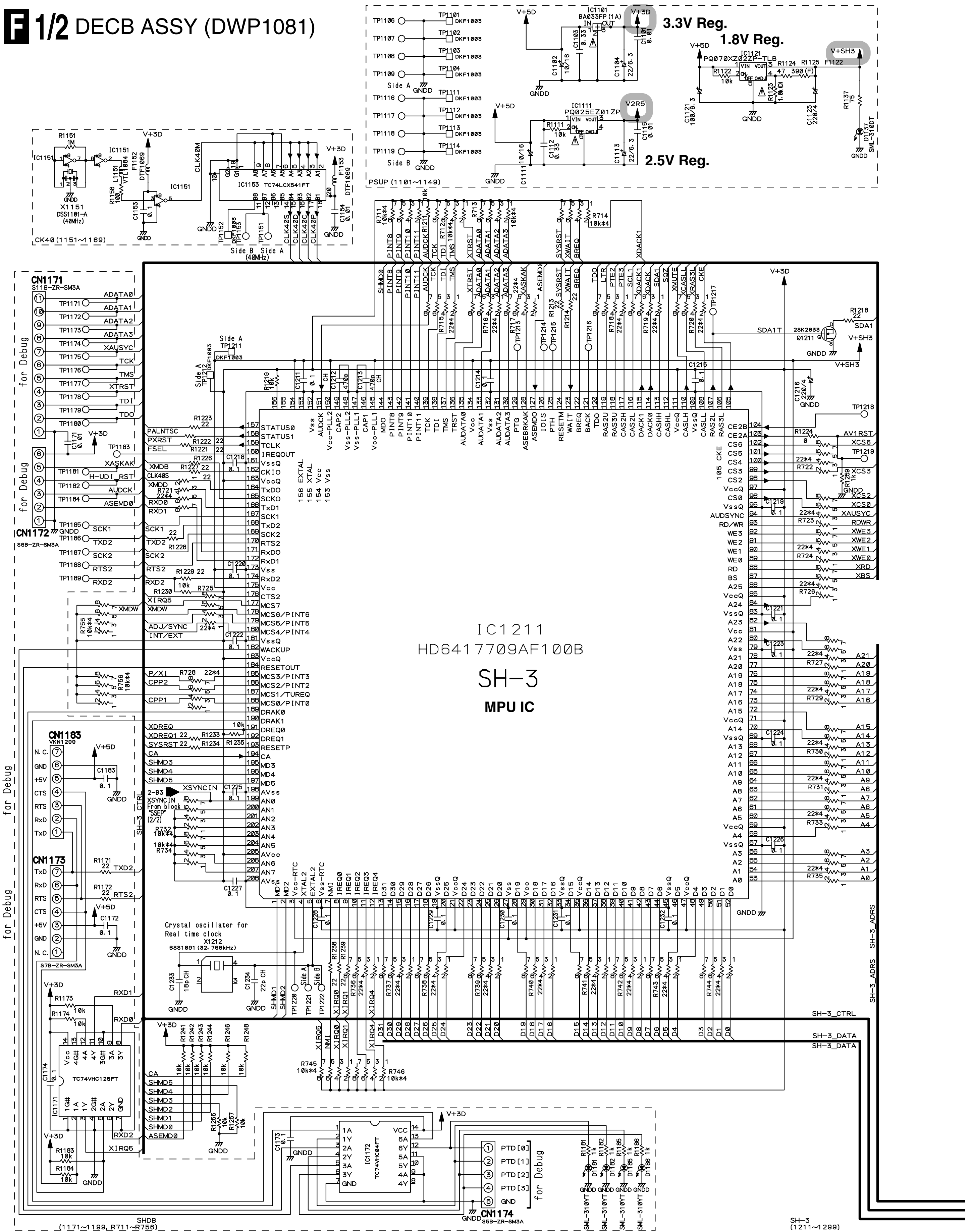
(P_V) ⇨ : Playback Signal Route (Composite Video)
(P_Y) ⇨ : Playback Signal Route (S-Video_Y)
(P_C) ⇨ : Playback Signal Route (S-Video_C)
(P_GY) ⇨ : Playback Signal Route (Component_Y)
(P_Cb) ⇨ : Playback Signal Route (Component_Cb)
(P_Cr) ⇨ : Playback Signal Route (Component_Cr)
(P_A) ➡ : Playback Signal Route (Analog Audio L ch)
(P_D) ➡ : Playback Signal Route (Digital Audio)

E JKOB ASSY (DWZ1127)


VKN1948-
KN7981
CEANP471M10
470u
C7981
VTL1089
L7981
2+
JA7981
DKN1269-
CH1
XLR OUT
C7982
VTL1089 L7982
2-
470u
CEANP471M10
GND
0 R7992
C7874 22p CH
C7877 22p CH
GNDAA
CEANP471M10
470u
C7983
1+
VTL1089
L7983
JA7981
DKN1269-
CH2
C7984
VTL1089 L7984
470u
CEANP471M10
GND
0 R7994
1-
C7878 22p CH
C7881 22p CH
GNDAA
(P_A)
L
JA7851
BKB1017-
R
UDZS5.1B
100k R7851
100k R7852
D7853 D7851
D7854 D7852
C7851 220p CH
C7852 220p CH
GNDAA
CN7851
CKS4361
(FH12-30S-0.5SV)
A 3/3 CN7802
XL+ OUT
GND
XL- OUT
GND
XR+ OUT
GND
XR- OUT
GND
R OUT
GND
L OUT
GND
DC-OUT
GND
CVBS OUT
GND
C OUT
GND
Y OUT
GND
GY OUT
GND
CB OUT
GND
CR OUT
GND
GND
GND
SPDIF OUT
GND
(P_C)
YB
R7854
10K
C7853
0.1
R7853
68F
JA7852
VKB1072-
S-VIDEO
ONTPUT
(P_Y)
C7854
C7855
CEAT102M10-F
R7855
68F
D7857 D7855
D7858 D7856
C7856 390
C7857 100p
GNDVV
(P_V)
C7858 C7859
CEAT102M10-F
R7856
68F
JA7853
DKN1267-
CVBS
OUTPUT
D7860 D7859
C7860 100p
(P_GY)
C7861
CEAT102M10-F
C7862
C7864
R7857
68F
JA7854
DKN1268-
Y
(P_Cb)
C7863
C7868
R7858
68F
Cb
(P_Cr)
C7867
R7859
68F
Cr
C7865 100p
C7866 100p
C7869 100p
D7864 D7861
D7865 D7862
D7866 D7863
(P_D)
R7860
75F
C7870
C7872
100/10
100K R7861
R7862
0
JA7855
VKB1159-A
SPDIF(RCA)
COAX
D7868 D7867
C7873 220p CH
GNDSD

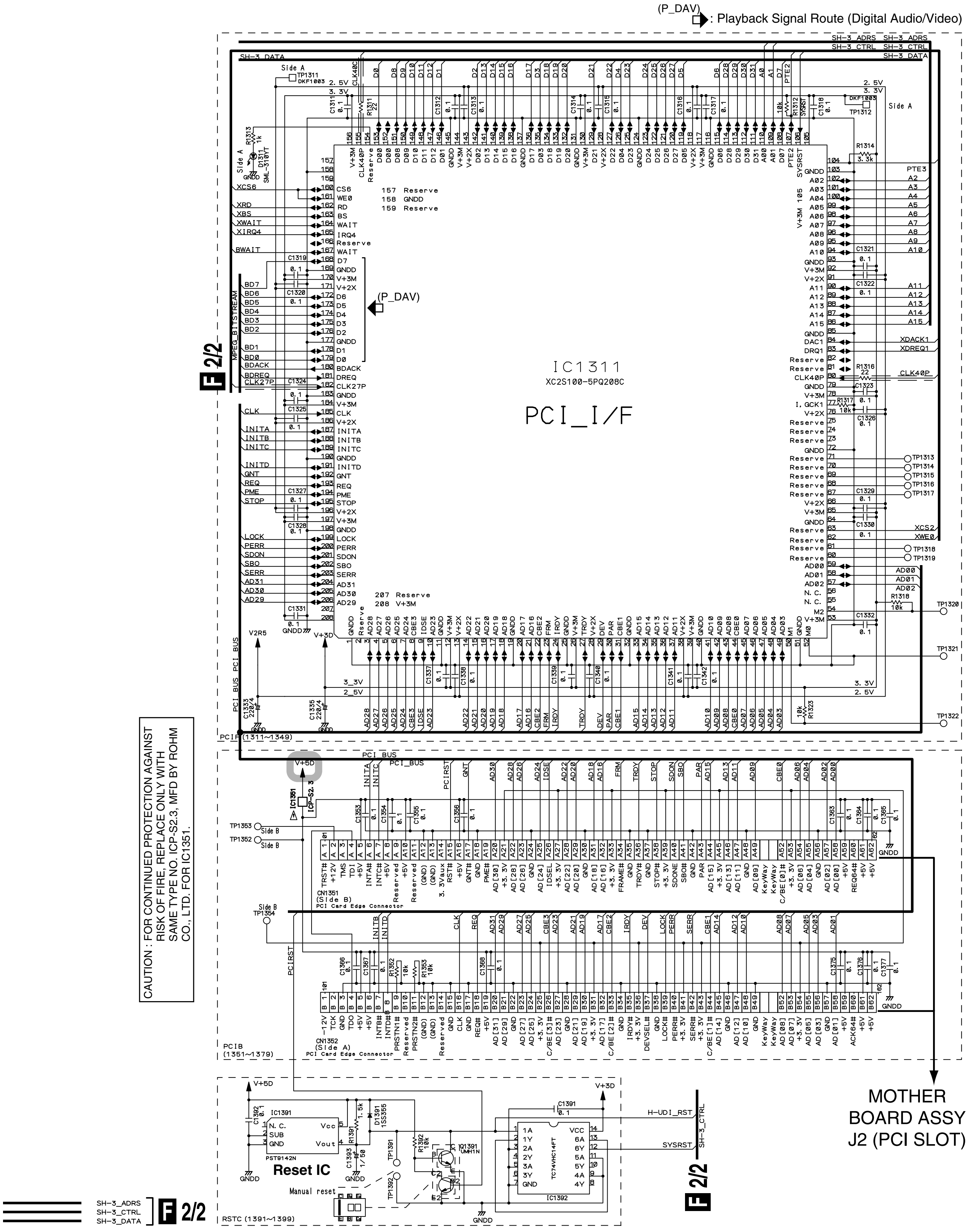
3.8 DECB ASSY (1/2)

F 1/2 DECB ASSY (DWP1081)


A
B
C
D
E
F
3.3V Reg.
1.8V Reg.
2.5V Reg.
IC1101 BA033FP (1A)
IC1111 PQ025EZ01ZP
IC1121 PQ070XZ02ZP-TLB
V+3D
V+5D
V2R5
V+SH3
PSUP (1101~1149)
TP1101 DKF1003
Side A
Side B
GNDD
IC1151
IC1153 TC74LCX541FT
X1151 DSS1101-A (40MHz)
CK40 (1151~1169)
CLK40M
CLK40S
CLK40D
CLK40C
CLK40P
CN1171 S11B-ZR-SM3A
for Debug
CN1172 S6B-ZR-SM3A
CN1183 VKN1299
CN1173 S7B-ZR-SM3A
CN1174 S5B-ZR-SM3A
IC1211
HD6417709AF100B
SH-3
MPU IC
Crystal oscillater for Real time clock
X1212 BSS1091 (32.768kHz)
2SK2033 Q1211
TC74VHC125FT
IC1172 TC74VHC04FT
PTD[0]
PTD[1]
PTD[2]
PTD[3]
SML-310YT
SH-3_CTRL
SH-3_DATA
SH-3_ADRS
SHDB (1171~1199, R711~R756)
SH-3 (1211~1299)
2-B3 XSYNCIN From block SCEP (2/2)

F 1/2

(P_DAV) : Playback Signal Route (Digital Audio/Video)

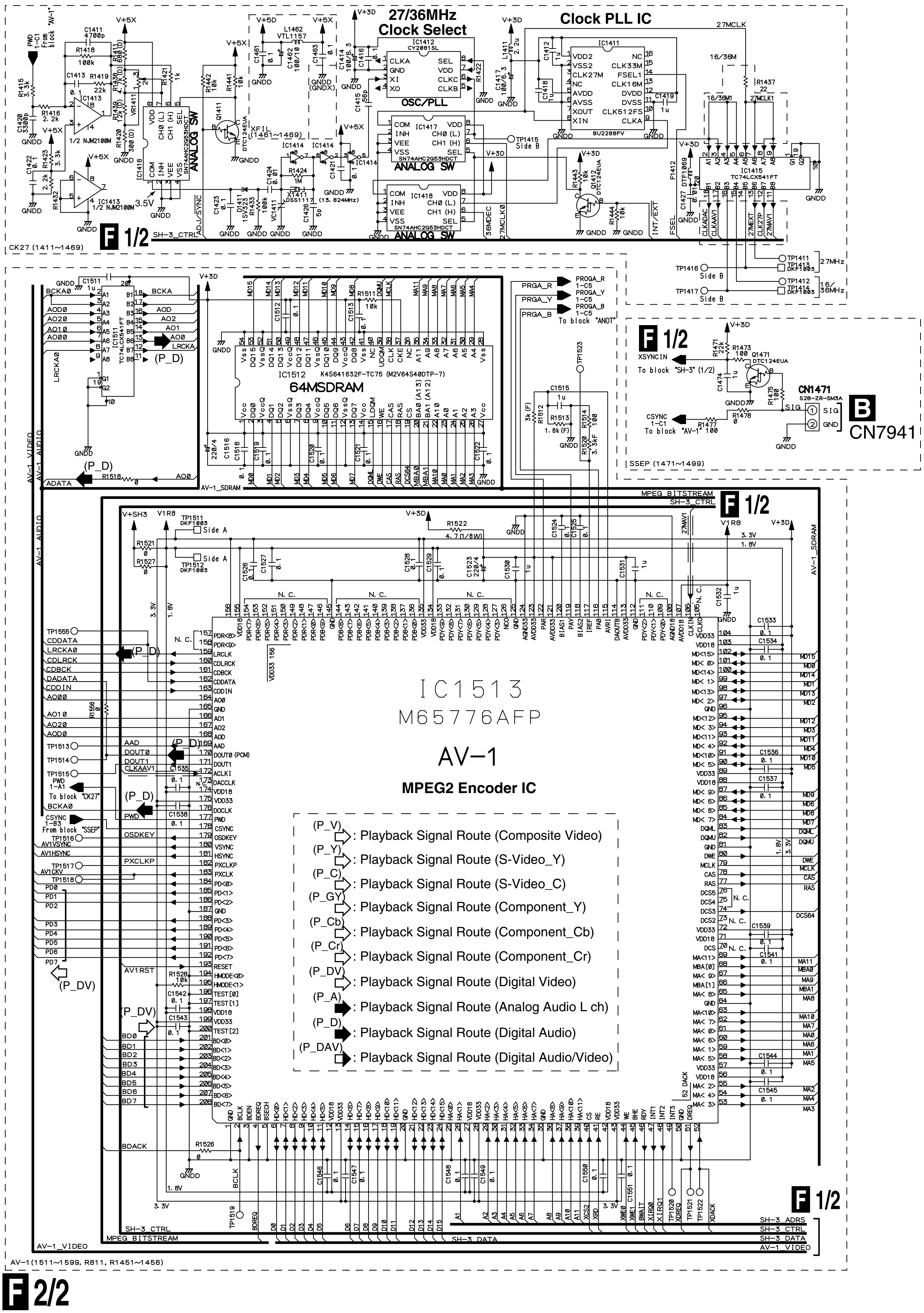

IC1311
XC2S100-5PQ208C
PCI_I/F
(P_DAV)
SH-3 DATA
SH-3 ADRS
SH-3 CTRL
MPEG BITSTREAM
PCI BUS
PCIF (1311~1349)
CN1351 (Side B) PCI Card Edge Connector
CN1352 (Side A) PCI Card Edge Connector
PCIB (1351~1379)
IC1391 PST9142N
Reset IC
Manual reset
IC1392 TC74VHC14FT
Q1391 UMH1N
D1391 1SS355
ICP-S2.3
H-UDI_RST
SYSRST
RSTC (1391~1399)
MOTHER BOARD ASSY J2 (PCI SLOT)
F 2/2

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-S2.3, MFD BY ROHM CO., LTD. FOR IC1351.

: The power supply is shown with the marked box.

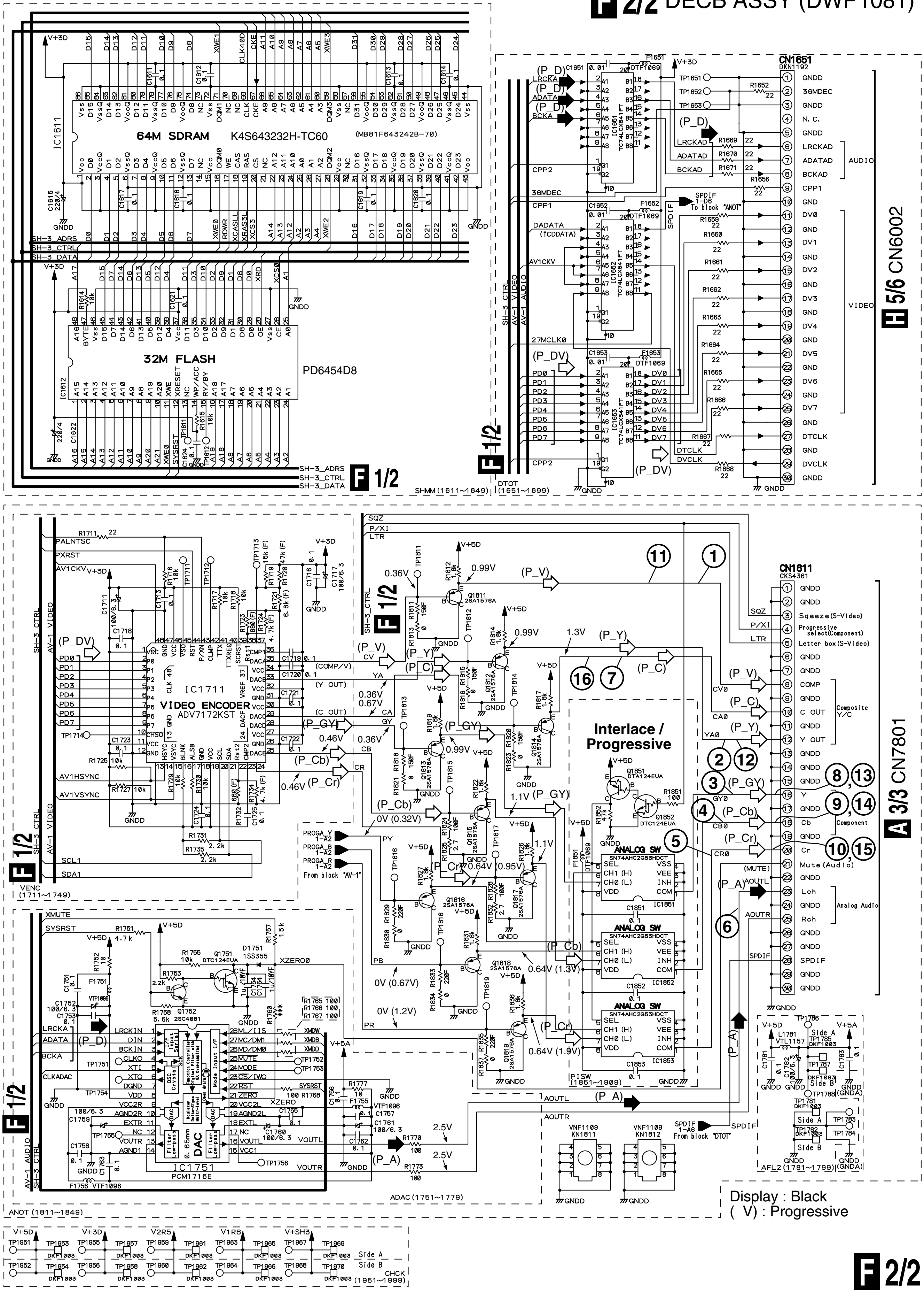
F 1/2

3.9 DECB ASSY (2/2)


A
B
C
D
E
F
27/36MHz
Clock Select
Clock PLL IC
IC1412
CY2081SL
OSC/PLL
IC1411
BU2288FV
IC1415
TC74LCX541FT
IC1417
SN74AHC2G53HDCT
ANALOG SW
IC1418
SN74AHC2G53HDCT
ANALOG SW
IC1416
SN74AHC2G53HDCT
ANALOG SW
IC1413
1/2 NJM2100M
Q1411
DTC124EUA
Q1412
DTC124EUA
XFIL
(1461~1469)
PWD
1-C1
From block "AV-1"
SH-3_CTRL
ADJ/SYNC
36MDEC
27MCLK0
INT/EXT
FSEL
CLKADAC
CLKAAV1
27MEXT
27MCLK
27MCLKP
27MAV1
16/36M
TP1411
TP1413
DKF1003
27MHz
TP1412
TP1414
DKF1003
16/36MHz
TP1415
Side B
TP1416
Side B
TP1417
Side B
CK27 (1411~1469)
F 1/2
IC1511
TC74LCX541FT
BCKA0
AOD0
AO20
AO10
AO00
LRCKA0
BCKA
AOD
AO2
AO1
AO0
LRCK
(P_D)
IC1512
K4S641632F-TC75 (M2V64S40DTP-7)
64MSDRAM
AV-1_SDRAM
PRGA_R
PRGA_Y
PRGA_B
PROGA_R
1-C5
PROGA_Y
1-C5
PROGA_B
1-C5
To block "ANOT"
TP1523
F 1/2
XSYNCIN
To block "SH-3" (1/2)
Q1471
DTC124EUA
CN1471
S2B-ZR-SM3A
SIG
GND
B
CN7941
CSYNC
1-C1
To block "AV-1"
SSEP (1471~1499)
ADATA
AV-1_VIDEO
AV-1_AUDIO
MPEG BITSTREAM
SH-3_CTRL
F 1/2
IC1513
M65776AFP
AV-1
MPEG2 Encoder IC
TP1511
DKF1003
Side A
TP1512
DKF1003
Side A
TP1555
CDDATA
LRCKA0
CDLRCK
CDBCK
DADATA
CDDIN
AO00
AO10
AO20
AOD0
TP1513
TP1514
TP1515
PWD
1-A1
To block "CK27"
BCKA0
CSYNC
1-B3
From block "SSEP"
TP1516
AV1VSYNC
AV1HSYNC
TP1517
AV1CKV
TP1518
PD0
PD1
PD2
PD3
PD4
PD5
PD6
PD7
(P_DV)
AV1RST
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
BDACK
AV-1_SDRAM
F 1/2
SH-3 ADRS
SH-3 CTRL
SH-3 DATA
AV-1 VIDEO
SH-3_DATA
AV-1_VIDEO
AV-1(1511~1599, R811, R1451~1456)
F 2/2

(P_V) : Playback Signal Route (Composite Video)
(P_Y) : Playback Signal Route (S-Video_Y)
(P_C) : Playback Signal Route (S-Video_C)
(P_GY) : Playback Signal Route (Component_Y)
(P_Cb) : Playback Signal Route (Component_Cb)
(P_Cr) : Playback Signal Route (Component_Cr)
(P_DV) : Playback Signal Route (Digital Video)
(P_A) : Playback Signal Route (Analog Audio L ch)
(P_D) : Playback Signal Route (Digital Audio)
(P_DAV) : Playback Signal Route (Digital Audio/Video)

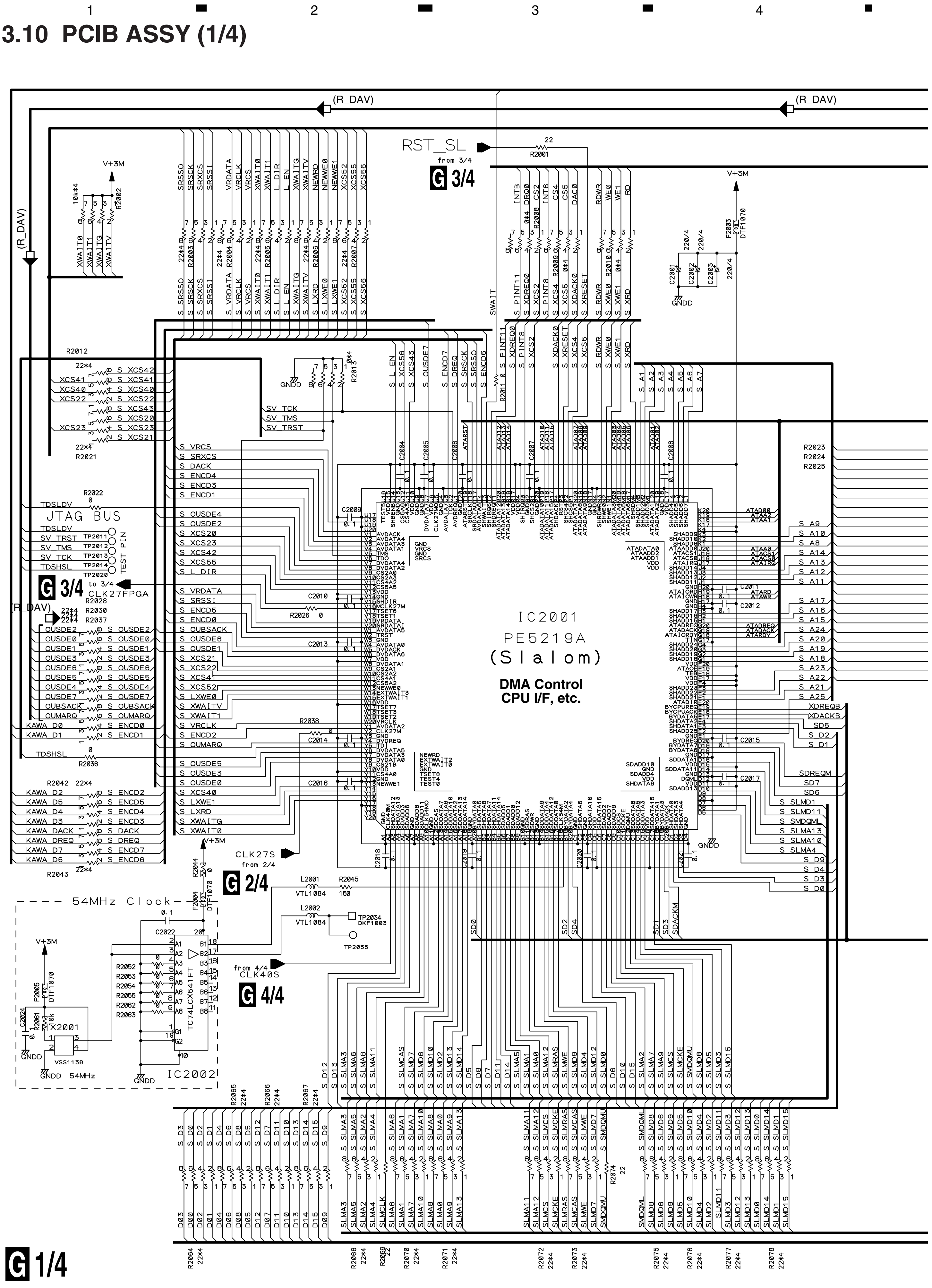
F 2/2 DECB ASSY (DWP1081)


64M SDRAM
K4S643232H-TC60
(MB81F643242B-70)
IC1611
32M FLASH
PD6454D8
IC1612
F 1/2
SHMM (1611~1649)
CN1651
DKN1192
IC1651 TC74LCX541FT
IC1652 TC74LCX541FT
IC1653 TC74LCX541FT
DTOT (1651~1699)
H 5/6 CN6002
AUDIO
VIDEO
LRCKAD
ADATAD
BCKAD
36MDEC
CPP1
DV0
DV1
DV2
DV3
DV4
DV5
DV6
DV7
DTCLK
DVCLK
SPDIF
1-D6
To block "ANOT"
IC1711
VIDEO ENCODER
ADV7172KST
VENC (1711~1749)
Interlace / Progressive
CN1811
CKS4361
Sqeeze(S-Video)
Progressive select(Component)
Letter box(S-Video)
COMP
C OUT
Y OUT
Composite Y/C
Y
Cb
Cr
Component
Mute(Audio)
Lch
Rch
Analog Audio
A 3/3 CN7801
ANALOG SW
SN74AHC2G53HDCT
IC1851
IC1852
IC1853
PISW (1851~1909)
PROGA_Y 1-A2
PROGA_B 1-A2
PROGA_Y 1-A2
From block "AV-1"
IC1751
PCM1716E
DAC
ADAC (1751~1779)
ANOT (1811~1849)
VNF1109 KN1811
VNF1109 KN1812
SPDIF 1-A6
From block "DTOT"
AFL2 (1781~1799)
CHCK (1951~1999)
Side A
Side B

Display : Black
(V) : Progressive

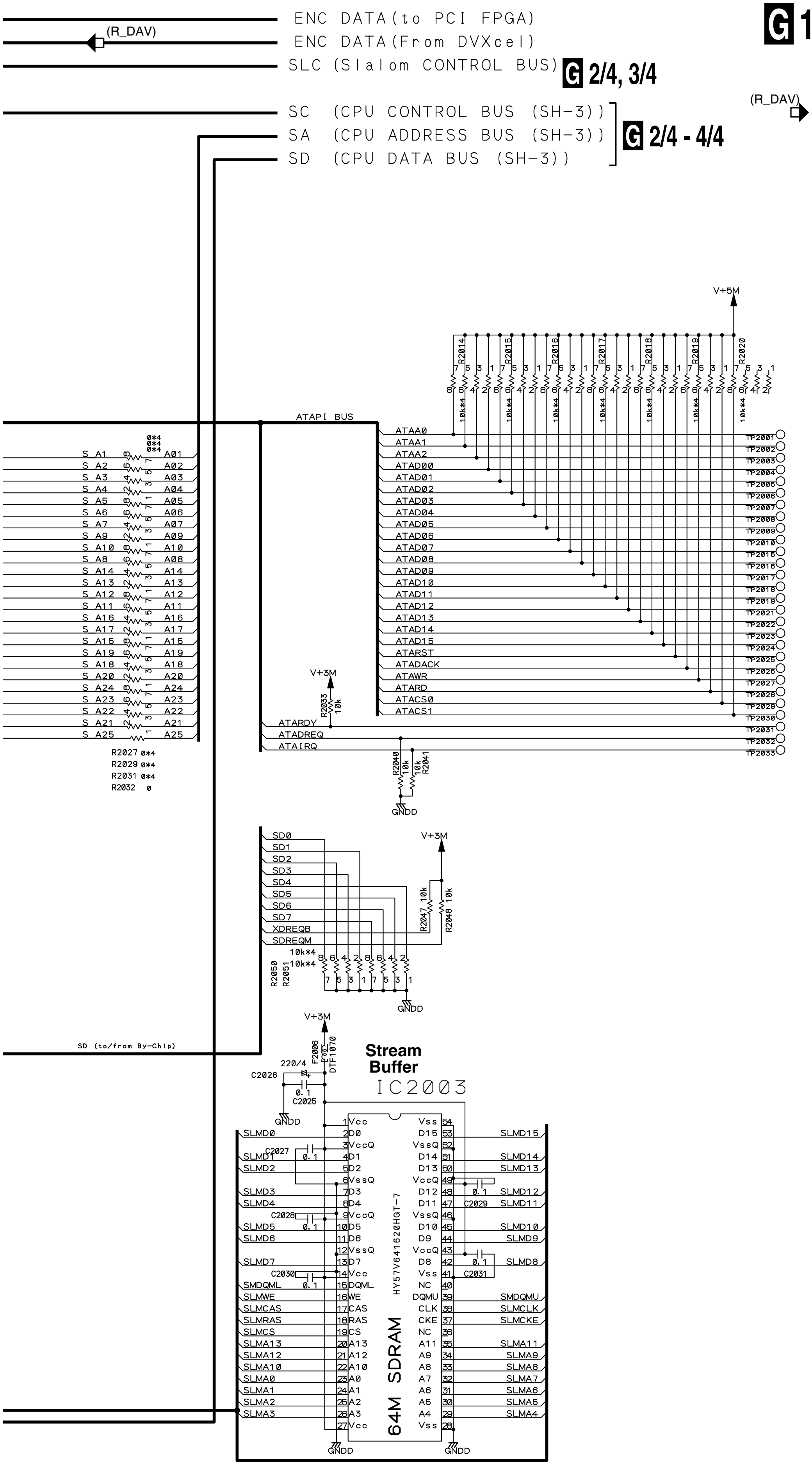
F 2/2

3.10 PCIB ASSY (1/4)


1
2
3
4
A
B
C
D
E
F
(R_DAV)
RST_SL
from 3/4
G 3/4
V+3M
R2001
22
R2002
10k*4
JTAG BUS
TDSLDV
SV TRST
SV TMS
SV TCK
TDSHSL
TP2011
TP2012
TP2013
TP2014
TP2020
TEST PIN
G 3/4
to 3/4
CLK27FPGA
IC2001
PE5219A
(Slalom)
DMA Control
CPU I/F, etc.
CLK27S
from 2/4
G 2/4
L2001
VTL1084
R2045
150
L2002
VTL1084
TP2034
DKF1003
TP2035
from 4/4
CLK40S
G 4/4
54MHz Clock
IC2002
TC74LCX541FT
X2001
VSS1138
54MHz
F2004
DTF1070
F2005
DTF1070
F2003
DTF1070
C2022
C2024
R2061
GNDD
G 1/4

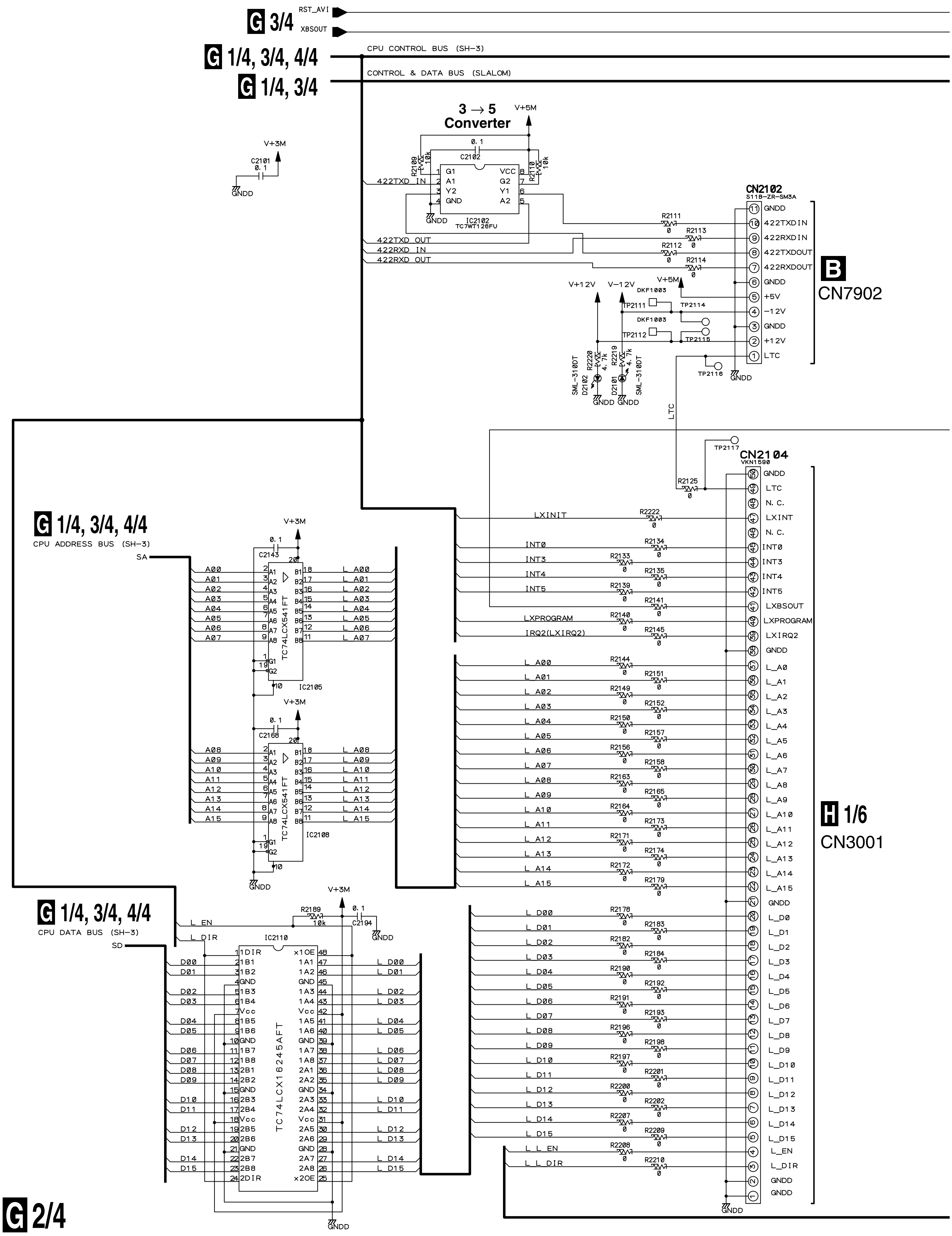
G 1/4 PCIB ASSY (DWP1080)

(R_DAV) : Recording Signal Route (Digital Audio/Video)



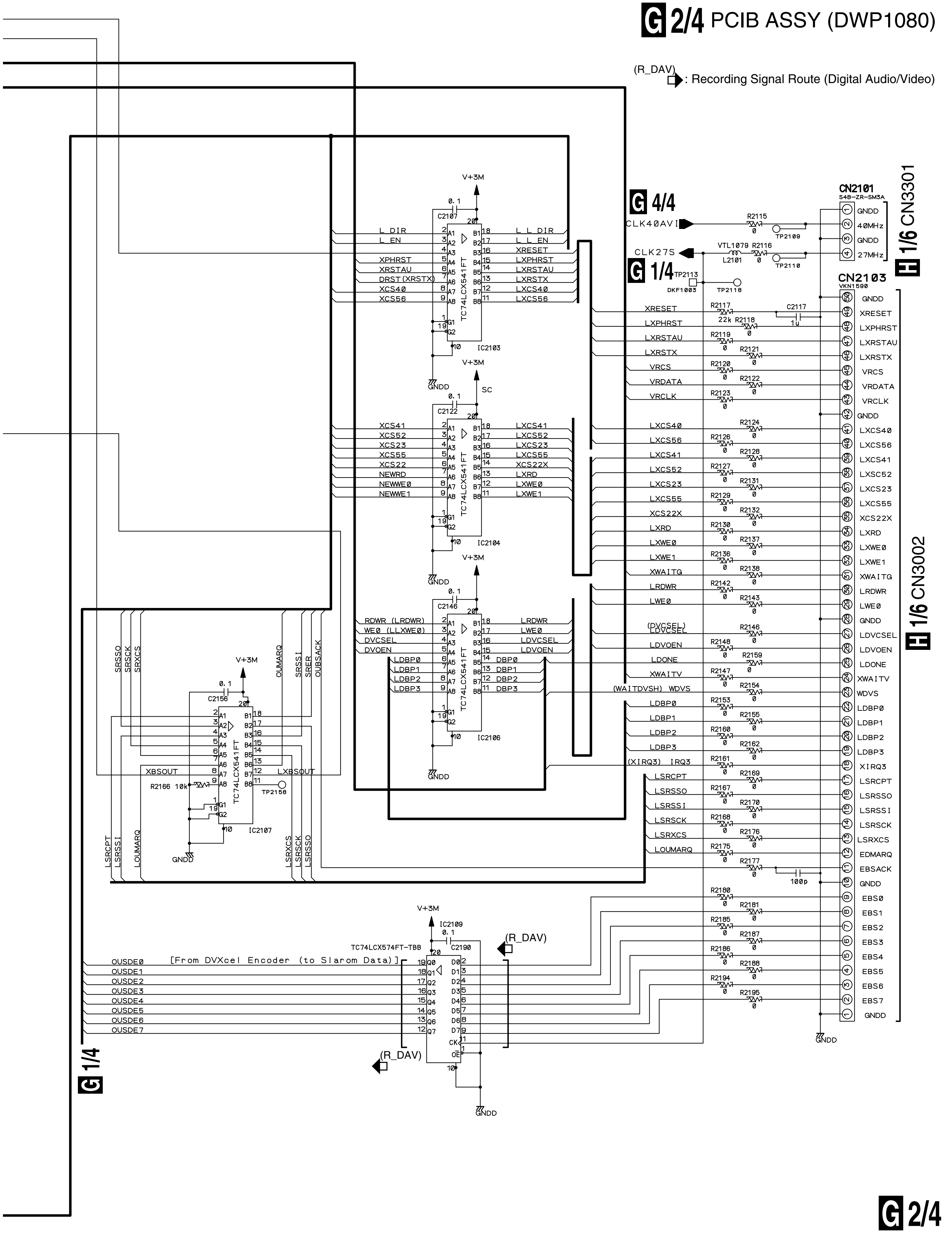
ENC DATA(to PCI FPGA)
ENC DATA(From DVXcel)
(R_DAV)
SLC (Slalom CONTROL BUS)
G 2/4, 3/4
SC (CPU CONTROL BUS (SH-3))
SA (CPU ADDRESS BUS (SH-3))
SD (CPU DATA BUS (SH-3))
G 2/4 - 4/4
V+5M
R2014
R2015
R2016
R2017
R2018
R2019
R2020
10k*4
ATAPI BUS
ATAA0
ATAA1
ATAA2
ATAD00
ATAD01
ATAD02
ATAD03
ATAD04
ATAD05
ATAD06
ATAD07
ATAD08
ATAD09
ATAD10
ATAD11
ATAD12
ATAD13
ATAD14
ATAD15
ATARST
ATADACK
ATAWR
ATARD
ATACS0
ATACS1
ATARDY
ATADREQ
ATAIRQ
TP2001
TP2002
TP2003
TP2004
TP2005
TP2006
TP2007
TP2008
TP2009
TP2010
TP2015
TP2016
TP2017
TP2018
TP2019
TP2021
TP2022
TP2023
TP2024
TP2025
TP2026
TP2027
TP2028
TP2029
TP2030
TP2031
TP2032
TP2033
V+3M
R2033 10k
R2040 10k
R2041 10k
GNDD
S A1 A01
S A2 A02
S A3 A03
S A4 A04
S A5 A05
S A6 A06
S A7 A07
S A9 A09
S A10 A10
S A8 A08
S A14 A14
S A13 A13
S A12 A12
S A11 A11
S A16 A16
S A17 A17
S A15 A15
S A19 A19
S A18 A18
S A20 A20
S A24 A24
S A23 A23
S A22 A22
S A21 A21
S A25 A25
0*4
R2027 0*4
R2029 0*4
R2031 0*4
R2032 0
SD0
SD1
SD2
SD3
SD4
SD5
SD6
SD7
XDREQB
SDREQM
V+3M
R2047 10k
R2048 10k
10k*4
R2050
R2051
GNDD
SD (to/from By-Chip)
V+3M
F2006
DTF1070
220/4
C2026
0.1
C2025
GNDD
Stream Buffer
IC2003
HY57V641620HGT-7
64M SDRAM
1 Vcc
2 D0
3 VccQ
4 D1
5 D2
6 VssQ
7 D3
8 D4
9 VccQ
10 D5
11 D6
12 VssQ
13 D7
14 Vcc
15 DQML
16 WE
17 CAS
18 RAS
19 CS
20 A13
21 A12
22 A10
23 A0
24 A1
25 A2
26 A3
27 Vcc
54 Vss
53 D15
52 VssQ
51 D14
50 D13
49 VccQ
48 D12
47 D11
46 VssQ
45 D10
44 D9
43 VccQ
42 D8
41 Vss
40 NC
39 DQMU
38 CLK
37 CKE
36 NC
35 A11
34 A9
33 A8
32 A7
31 A6
30 A5
29 A4
28 Vss
SLMD0
SLMD1
SLMD2
SLMD3
SLMD4
SLMD5
SLMD6
SLMD7
SMDQML
SLMWE
SLMCAS
SLMRAS
SLMCS
SLMA13
SLMA12
SLMA10
SLMA0
SLMA1
SLMA2
SLMA3
SLMD15
SLMD14
SLMD13
SLMD12
SLMD11
SLMD10
SLMD9
SLMD8
SMDQMU
SLMCLK
SLMCKE
SLMA11
SLMA9
SLMA8
SLMA7
SLMA6
SLMA5
SLMA4
C2027 0.1
C2028 0.1
C2030 0.1
C2029 0.1
C2031 0.1
GNDD

3.11 PCIB ASSY (2/4)


G 3/4
RST_AVI
XBSOUT
G 1/4, 3/4, 4/4
CPU CONTROL BUS (SH-3)
G 1/4, 3/4
CONTROL & DATA BUS (SLALOM)
3 → 5 Converter
V+5M
V+3M
C2101 0.1
GNDD
C2102 0.1
R2109 10k
R2110 10k
IC2102 TC7WT126FU
G1 A1 Y2 GND VCC G2 Y1 A2
422TXD_IN
422TXD_OUT
422RXD_IN
422RXD_OUT
R2111 0
R2112 0
R2113 0
R2114 0
CN2102 S11B-ZR-SM3A
GNDD
422TXDIN
422RXDIN
422TXDOUT
422RXDOUT
+5V
-12V
+12V
LTC
B CN7902
V+12V
V-12V
DKF1003
TP2111
TP2112
TP2114
TP2115
TP2116
TP2117
R2220 4.7k
R2219 4.7k
D2102 SML-310DT
D2101 SML-310DT
CN2104 VKN1590
R2125 0
LXINIT
N. C.
LXINT
INT0
INT3
INT4
INT5
LXBSOUT
LXPROGRAM
IRQ2(LXIRQ2)
LXIRQ2
R2222 0
R2134 0
R2133 0
R2135 0
R2139 0
R2141 0
R2140 0
R2145 0
G 1/4, 3/4, 4/4
CPU ADDRESS BUS (SH-3)
SA
A00 A01 A02 A03 A04 A05 A06 A07
A08 A09 A10 A11 A12 A13 A14 A15
C2143 0.1
C2166 0.1
IC2105 TC74LCX541FT
IC2108 TC74LCX541FT
L_A00 L_A01 L_A02 L_A03 L_A04 L_A05 L_A06 L_A07
L_A08 L_A09 L_A10 L_A11 L_A12 L_A13 L_A14 L_A15
R2144 R2151 R2149 R2152 R2150 R2157 R2156 R2158 R2163 R2165 R2164 R2173 R2171 R2174 R2172 R2179
L_A0 L_A1 L_A2 L_A3 L_A4 L_A5 L_A6 L_A7 L_A8 L_A9 L_A10 L_A11 L_A12 L_A13 L_A14 L_A15
H 1/6
CN3001
G 1/4, 3/4, 4/4
CPU DATA BUS (SH-3)
SD
L_EN
L_DIR
R2189 10k
C2194 0.1
IC2110 TC74LCX16245AFT
D00 D01 D02 D03 D04 D05 D06 D07 D08 D09 D10 D11 D12 D13 D14 D15
L_D00 L_D01 L_D02 L_D03 L_D04 L_D05 L_D06 L_D07 L_D08 L_D09 L_D10 L_D11 L_D12 L_D13 L_D14 L_D15
R2178 R2183 R2182 R2184 R2190 R2192 R2191 R2193 R2196 R2198 R2197 R2201 R2200 R2202 R2207 R2209 R2208 R2210
L_D0 L_D1 L_D2 L_D3 L_D4 L_D5 L_D6 L_D7 L_D8 L_D9 L_D10 L_D11 L_D12 L_D13 L_D14 L_D15
L_L_EN
L_L_DIR
G 2/4

G 2/4 PCIB ASSY (DWP1080)

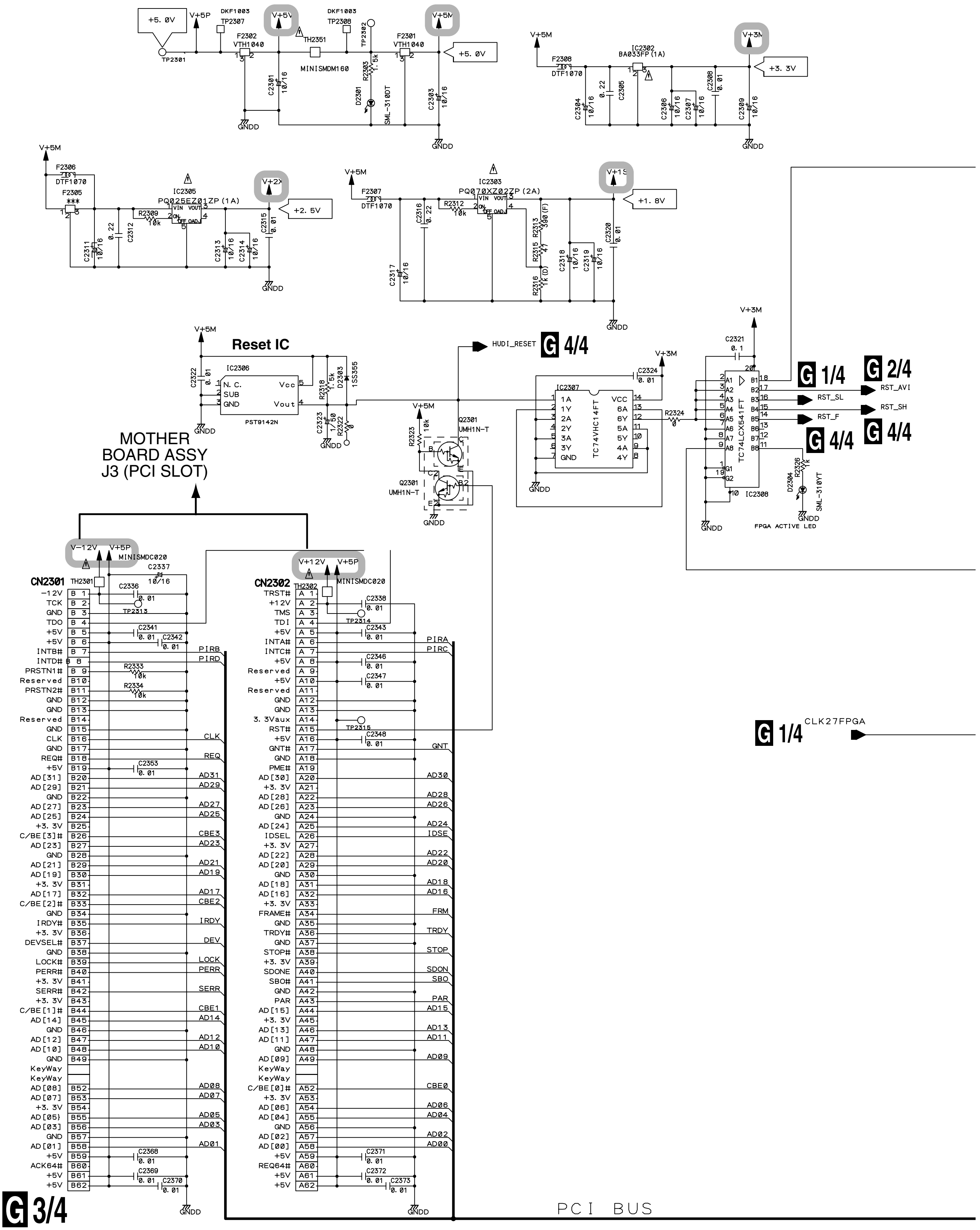
(R_DAV) : Recording Signal Route (Digital Audio/Video)

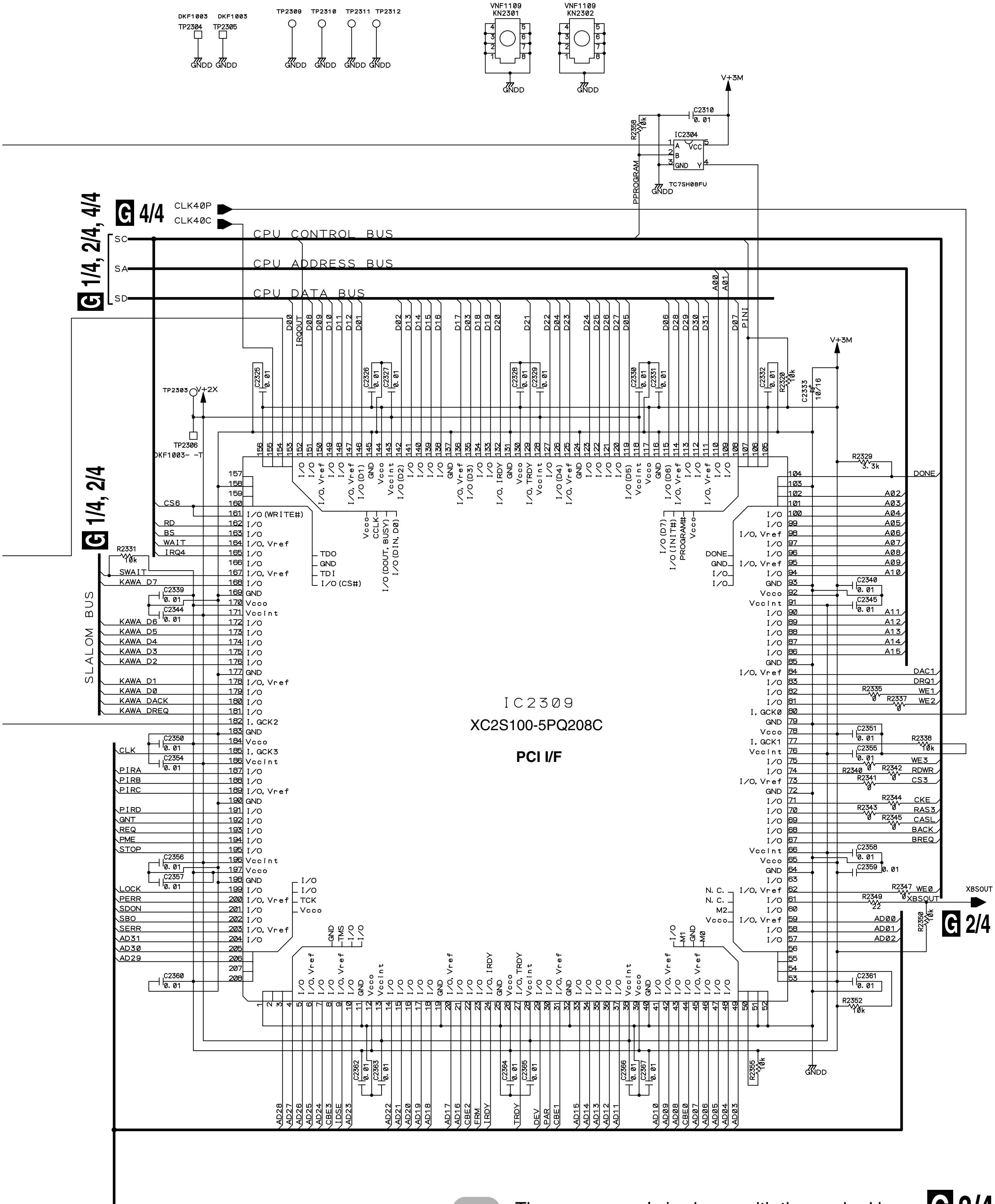

A
B
C
D
E
F
G 4/4
CLK40AVI
CLK27S
G 1/4
TP2113
DKF1003
TP2118
R2115
0
TP2109
VTL1079 R2116
L2101
TP2110
CN2101
S4B-ZR-SM3A
GNDD
40MHz
GNDD
27MHz
H 1/6 CN3301
CN2103
VKN1590
H 1/6 CN3002
V+3M
0.1
C2107
C2122
C2146
C2156
C2190
SC
IC2103
IC2104
IC2106
IC2107
IC2109
TC74LCX541FT
TC74LCX574FT-TBB
GNDD
L_DIR
L_EN
XPHRST
XRSTAU
DRST(XRSTX)
XCS40
XCS56
L_L_DIR
L_L_EN
XRESET
LXPHRST
LXRSTAU
LXRSTX
LXCS40
LXCS56
XCS41
XCS52
XCS23
XCS55
XCS22
NEWRD
NEWWE0
NEWWE1
LXCS41
LXCS52
LXCS23
LXCS55
XCS22X
LXRD
LXWE0
LXWE1
RDWR (LRDWR)
WE0 (LLXWE0)
DVCSEL
DVOEN
LDBP0
LDBP1
LDBP2
LDBP3
LRDWR
LWE0
LDVCSEL
LDVOEN
DBP0
DBP1
DBP2
DBP3
SRSSO
SRSCK
SRXCS
OUMARQ
SRSSI
SRER
OUBSACK
XBSOUT
LXBSOUT
R2166 10k
TP2158
LSRCPT
LSRSSI
LOUMARQ
LSRXCS
LSRSCK
LSRSSO
XRESET
LXPHRST
LXRSTAU
LXRSTX
VRCS
VRDATA
VRCLK
LXCS40
LXCS56
LXCS41
LXCS52
LXCS23
LXCS55
XCS22X
LXRD
LXWE0
LXWE1
XWAITG
LRDWR
LWE0
(DVCSEL) LDVCSEL
LDVOEN
LDONE
XWAITV
(WAITDVSH) WDVS
LDBP0
LDBP1
LDBP2
LDBP3
(XIRQ3) IRQ3
LSRCPT
LSRSSO
LSRSSI
LSRSCK
LSRXCS
LOUMARQ
R2117 22k
C2117 1u
R2118 0
R2119 0
R2120 0
R2121 0
R2122 0
R2123 0
R2124 0
R2126 0
R2127 0
R2128 0
R2129 0
R2130 0
R2131 0
R2132 0
R2136 0
R2137 0
R2138 0
R2142 0
R2143 0
R2146 0
R2147 0
R2148 0
R2153 0
R2154 0
R2155 0
R2159 0
R2160 0
R2161 0
R2162 0
R2167 0
R2168 0
R2169 0
R2170 0
R2175 0
R2176 0
R2177 0
R2180 0
R2181 0
R2185 0
R2186 0
R2187 0
R2188 0
R2194 0
R2195 0
100p
GNDD
XRESET
LXPHRST
LXRSTAU
LXRSTX
VRCS
VRDATA
VRCLK
GNDD
LXCS40
LXCS56
LXCS41
LXSC52
LXCS23
LXCS55
XCS22X
LXRD
LXWE0
LXWE1
XWAITG
LRDWR
LWE0
GNDD
LDVCSEL
LDVOEN
LDONE
XWAITV
WDVS
LDBP0
LDBP1
LDBP2
LDBP3
XIRQ3
LSRCPT
LSRSSO
LSRSSI
LSRSCK
LSRXCS
EDMARQ
EBSACK
GNDD
EBS0
EBS1
EBS2
EBS3
EBS4
EBS5
EBS6
EBS7
GNDD
(R_DAV)
[From DVXcel Encoder (to Slarom Data)]
OUSDE0
OUSDE1
OUSDE2
OUSDE3
OUSDE4
OUSDE5
OUSDE6
OUSDE7
Q0
Q1
Q2
Q3
Q4
Q5
Q6
Q7
D0
D1
D2
D3
D4
D5
D6
D7
CK
OE
G 1/4

G 2/4

3.12 PCIB ASSY (3/4)

G 3/4 PCIB ASSY (DWP1080)

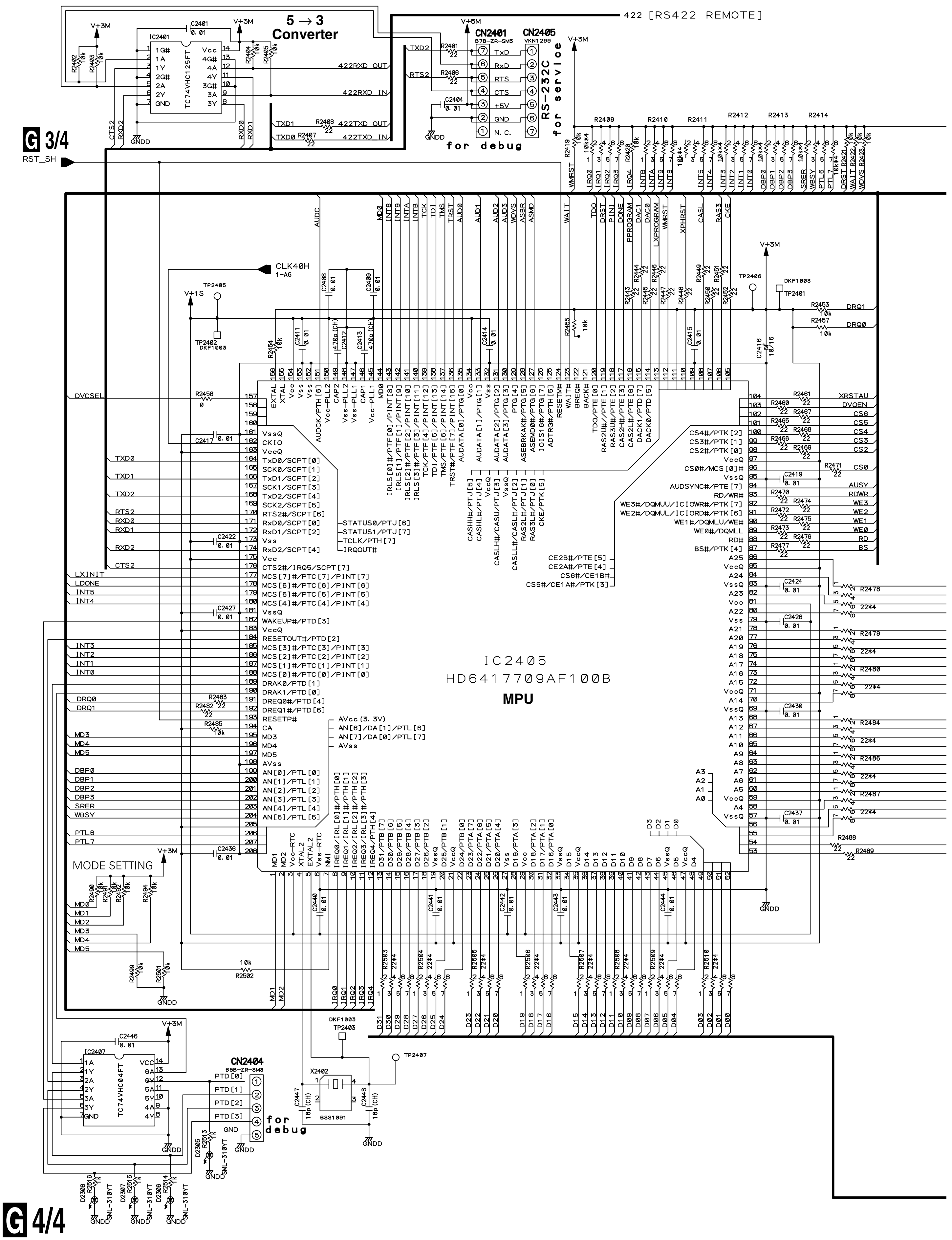

+5. 0V
V+5P
DKF1003
TP2307
TP2301
F2302
VTH1040
V+5V
C2301
10/16
GNDD
TH2351
MINISMDM160
DKF1003
TP2308
TP2302
R2303
1.5k
D2301
SML-310DT
F2301
VTH1040
V+5M
+5. 0V
C2303
10/16
V+5M
F2308
DTF1070
IC2302
BA033FP (1A)
V+3M
+3. 3V
C2304
C2305
0.22
C2306
C2307
C2308
0.01
C2309
10/16
V+5M
F2306
DTF1070
F2305
***
IC2305
PQ025EZ01ZP (1A)
R2309
10k
V+2X
+2. 5V
C2311
C2312
C2313
C2314
C2315
V+5M
F2307
DTF1070
IC2303
PQ070XZ02ZP (2A)
R2312
10k
C2316
C2317
R2313
390 (F)
R2315
47
R2316
1k (D)
C2318
C2319
C2320
V+1S
+1. 8V
Reset IC
V+5M
C2322
IC2306
N. C.
SUB
GND
Vcc
Vout
PST9142N
R2318
D2303
1SS355
C2323
R2322
HUDI_RESET
G 4/4
V+5M
R2323
10k
Q2301
UMH1N-T
V+3M
C2324
0.01
IC2307
TC74VHC14FT
R2324
0
V+3M
C2321
0.1
IC2308
TC74LCX541FT
G 1/4
G 2/4
RST_AVI
RST_SL
RST_SH
RST_F
G 4/4
G 4/4
R2326
1k
D2304
SML-310YT
FPGA ACTIVE LED
MOTHER BOARD ASSY J3 (PCI SLOT)
V-12V
V+5P
MINISMDC020
C2337
10/16
CN2301
TH2301
C2336
TP2313
C2341
C2342
R2333
10k
R2334
10k
C2353
C2368
C2369
C2370
V+12V
V+5P
MINISMDC020
CN2302
TH2302
C2338
TP2314
C2343
C2346
C2347
TP2315
C2348
C2371
C2372
C2373
PIRB
PIRD
PIRA
PIRC
CLK
REQ
GNT
G 1/4
CLK27FPGA
PCI BUS
G 3/4


A
B
C
D
E
F
DKF1003
TP2304
TP2305
TP2309 TP2310 TP2311 TP2312
GNDD
VNF1109
KN2301
KN2302
V+3M
C2310
0.01
R2358
10k
IC2304
TC7SH08FU
PPROGRAM
G 4/4
CLK40P
CLK40C
G 1/4, 2/4, 4/4
SC
SA
SD
CPU CONTROL BUS
CPU ADDRESS BUS
CPU DATA BUS
A00
A01
D07
PINI
D00
IRQOUT
D08 D09 D10 D11 D12 D01
D02 D13 D14 D15 D16
D17 D03 D18 D19 D20
D21 D22 D04 D23
D24 D25 D26 D27 D05
D06 D28 D29 D30 D31
TP2303
V+2X
TP2306
DKF1003-T
G 1/4, 2/4
CS6
RD
BS
WAIT
IRQ4
R2331
10k
SWAIT
KAWA D7
KAWA D6
KAWA D5
KAWA D4
KAWA D3
KAWA D2
KAWA D1
KAWA D0
KAWA DACK
KAWA DREQ
SLALOM BUS
CLK
PIRA
PIRB
PIRC
PIRD
GNT
REQ
PME
STOP
LOCK
PERR
SDON
SBO
SERR
AD31
AD30
AD29
IC2309
XC2S100-5PQ208C
PCI I/F
TDO
GND
TDI
I/O (CS#)
Vcco
CCLK
I/O (DOUT, BUSY)
I/O (DIN, D0)
I/O (D7)
I/O (INIT#)
PROGRAM#
DONE
R2329
3.3k
A02 A03 A04 A05 A06 A07 A08 A09 A10
A11 A12 A13 A14 A15
DAC1
DRQ1
WE1
WE2
R2335
R2337
R2338
10k
WE3
RDWR
CS3
R2340
R2341
R2342
CKE
RAS3
CASL
BACK
BREQ
R2343
R2344
R2345
R2347
WE0
XBSOUT
R2349
22
R2350
10k
G 2/4
AD00
AD01
AD02
N. C.
M2
R2352
10k
R2355
10k
AD28 AD27 AD26 AD25 AD24 CBE3 IDSE AD23
AD22 AD21 AD20 AD19 AD18
AD17 AD16 CBE2 FRM IRDY
TRDY DEV PAR CBE1 AD15 AD14 AD13 AD12 AD11
AD10 AD09 AD08 CBE0 AD07 AD06 AD05 AD04 AD03
C2325 C2326 C2327 C2328 C2329 C2330 C2331 C2332 C2333
10/16
C2339 C2344 C2350 C2354 C2356 C2357 C2360
C2340 C2345 C2351 C2355 C2358 C2359 C2361
C2362 C2363 C2364 C2365 C2366 C2367
0.01

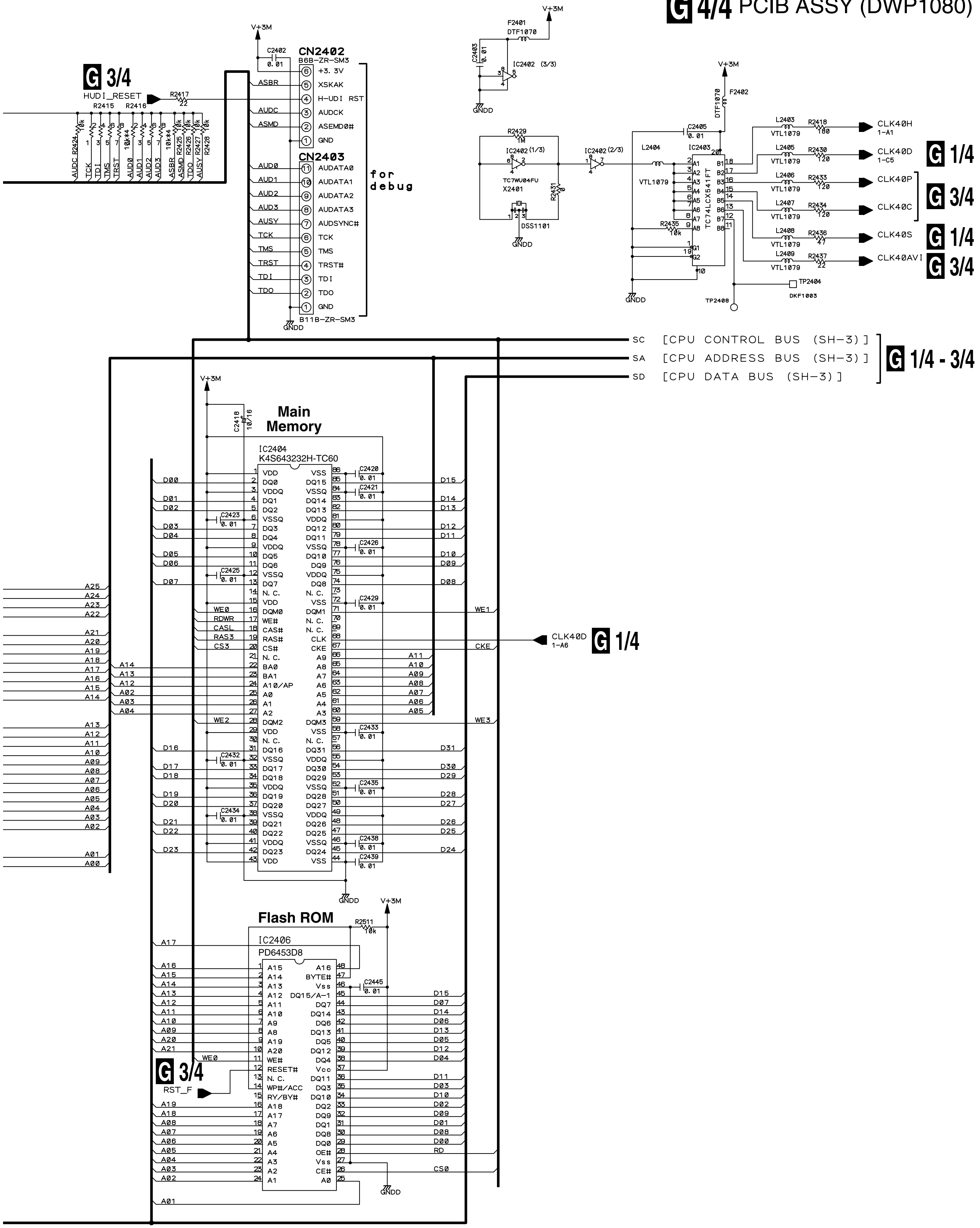
: The power supply is shown with the marked box.

G 3/4

3.13 PCIB ASSY (4/4)

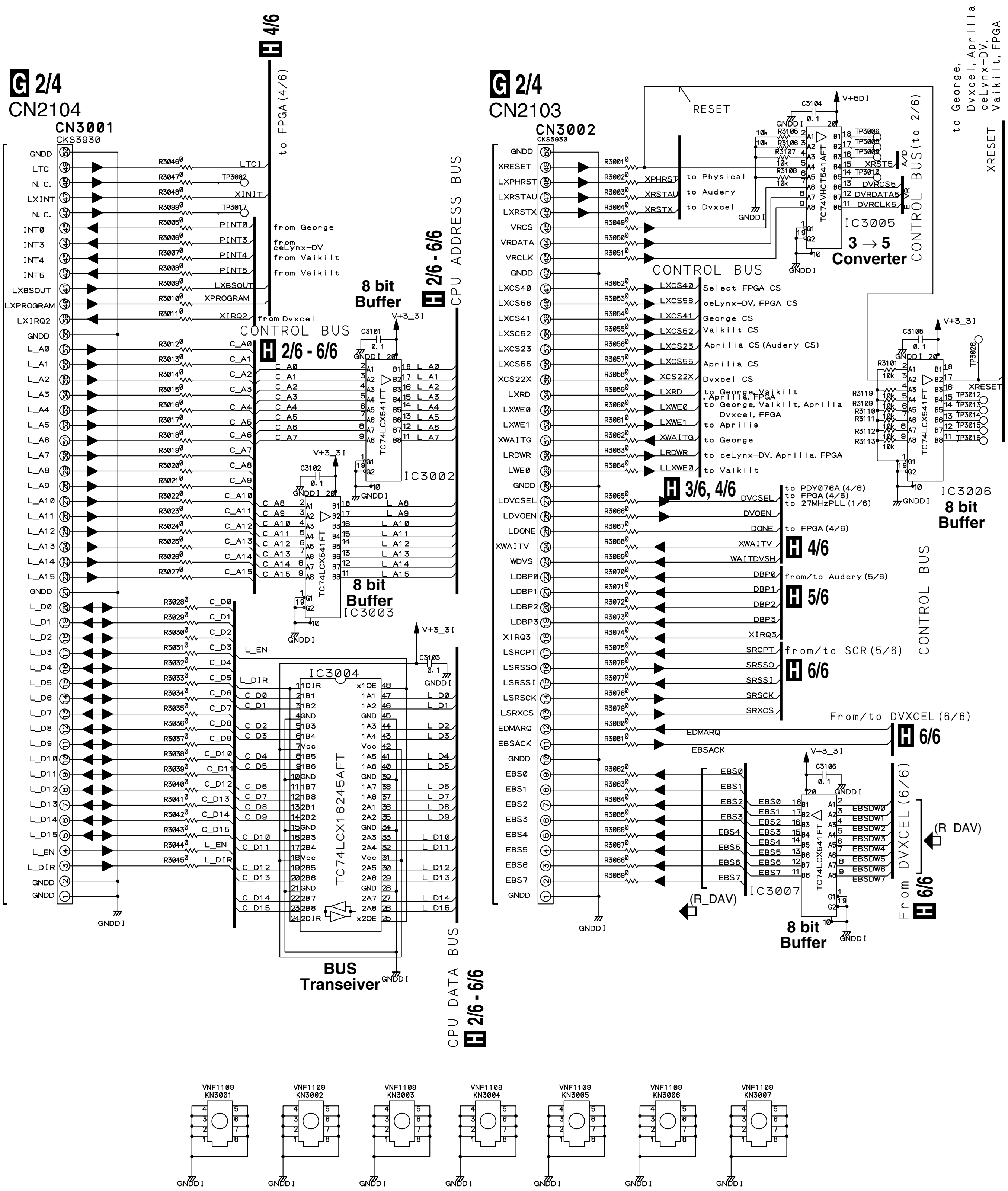

A
B
C
D
E
F
G 3/4
RST_SH
5 → 3 Converter
IC2401
TC74VHC125FT
C2401 0.01
V+3M
R2402 10k
R2403 10k
R2404 10k
R2405 10k
422RXD OUT
422RXD IN
422TXD OUT
422TXD IN
TXD1
TXD0
RXD0
RXD1
CTS2
RXD2
R2408 22
R2407 22
422 [RS422 REMOTE]
V+5M
CN2401
B7B-ZR-SM3
CN2405
VKN1299
TXD2
RTS2
R2401 22
R2406 22
C2404 0.01
TxD
RxD
RTS
CTS
+5V
GND
N.C.
RS-232C for service
for debug
GNDD
R2409
R2410
R2411
R2412
R2413
R2414
R2419 10k
WAIT
WMRST
IRQ0
IRQ1
IRQ2
IRQ3
IRQ4
INTB
INT9
INT8
INT5
INT4
INT3
INT2
INT1
INT0
DBP0
DBP1
DBP2
DBP3
SRER
WBSY
PTL6
PTL7
DRST
WAIT
WDVS
CLK40H 1-A6
TP2405
V+1S
TP2402 DKF1003
C2408 0.01
C2409 0.01
C2411 0.01
C2412 470p (CH)
C2413 470p (CH)
C2414 0.01
C2415 0.01
C2416 10/16
R2454 10k
R2455 10k
TP2406
TP2401 DKF1003
R2453 10k
R2457 10k
DRQ1
DRQ0
DVCSEL
R2458 0
C2417 0.01
IC2405
HD6417709AF100B
MPU
XRSTAU
DVOEN
CS6
CS5
CS4
CS3
CS2
CS0
AUSY
RDWR
WE3
WE2
WE1
WE0
RD
BS
R2478 22*4
R2479 22*4
R2480 22*4
R2484 22*4
R2486 22*4
R2487 22*4
R2488
R2489
C2419 0.01
C2424 0.01
C2428 0.01
C2430 0.01
C2437 0.01
C2422 0.01
C2427 0.01
C2436 0.01
LXINIT
LDONE
DRQ0
DRQ1
R2482 22
R2483 22
R2485 10k
MD0
MD1
MD2
MD3
MD4
MD5
MODE SETTING
R2490 10k
R2491 10k
R2492 10k
R2494 10k
R2499 10k
R2501 10k
R2502 10k
C2440 0.01
C2441 0.01
C2442 0.01
C2443 0.01
C2444 0.01
R2503 22*4
R2504 22*4
R2505 22*4
R2506 22*4
R2507 22*4
R2508 22*4
R2509 22*4
R2510 22*4
D31 D30 D29 D28 D27 D26 D25 D24
D23 D22 D21 D20
D19 D18 D17 D16
D15 D14 D13 D12 D11 D10 D09 D08 D07 D06 D05 D04
D03 D02 D01 D00
A3 A2 A1 A0
D3 D2 D1 D0
DKF1003 TP2403
TP2407
X2402
BSS1091
C2447 18p (CH)
C2448 18p (CH)
IC2407
TC74VHC04FT
C2446 0.01
CN2404
B5B-ZR-SM3
PTD[0]
PTD[1]
PTD[2]
PTD[3]
GND
for debug
D2305 R2513 1k SML-310YT
D2308 R2516 1k SML-310YT
D2307 R2515 1k SML-310YT
D2306 R2514 1k SML-310YT
G 4/4

G 4/4 PCIB ASSY (DWP1080)


G 3/4
HUDI_RESET
R2417 22
R2415 R2416
AUDC R2424 10k
TCK
TDI
TMS
TRST 10k*4
AUD0
AUD1
AUD2
AUD3 10k*4
ASBR R2425 10k
ASMD R2426 10k
TDO R2427 10k
AUSY R2428 10k
V+3M
C2402 0.01
CN2402 B6B-ZR-SM3
+3.3V
XSKAK
H-UDI RST
AUDCK
ASEMD0#
GND
CN2403
AUDATA0
AUDATA1
AUDATA2
AUDATA3
AUDSYNC#
TCK
TMS
TRST#
TDI
TDO
GND
B11B-ZR-SM3
GNDD
for debug
F2401 DTF1070
C2403 0.01
IC2402 (3/3)
R2429 1M
IC2402 (1/3)
IC2402 (2/3)
TC7WU04FU
X2401
DSS1101
R2431
L2404
VTL1079
IC2403
TC74LCX541FT
C2405 0.01
F2402 DTF1070
R2435 10k
TP2408
TP2404 DKF1003
L2403 VTL1079 R2418 180 CLK40H 1-A1
L2405 VTL1079 R2430 120 CLK40D 1-C5 G 1/4
L2406 VTL1079 R2433 120 CLK40P
L2407 VTL1079 R2434 120 CLK40C G 3/4
L2408 VTL1079 R2436 47 CLK40S G 1/4
L2409 VTL1079 R2437 22 CLK40AVI G 3/4
SC [CPU CONTROL BUS (SH-3)]
SA [CPU ADDRESS BUS (SH-3)]
SD [CPU DATA BUS (SH-3)]
G 1/4 - 3/4
Main Memory
C2418 10/16
IC2404 K4S643232H-TC60
C2420 0.01
C2421 0.01
C2423 0.01
C2425 0.01
C2426 0.01
C2429 0.01
C2432 0.01
C2433 0.01
C2434 0.01
C2435 0.01
C2438 0.01
C2439 0.01
WE0 RDWR CASL RAS3 CS3 WE2
WE1 CKE WE3
CLK40D 1-A6 G 1/4
Flash ROM
IC2406 PD6453D8
R2511 10k
C2445 0.01
G 3/4 RST_F
RD CS0
GNDD

3.14 AVIB ASSY (1/6)

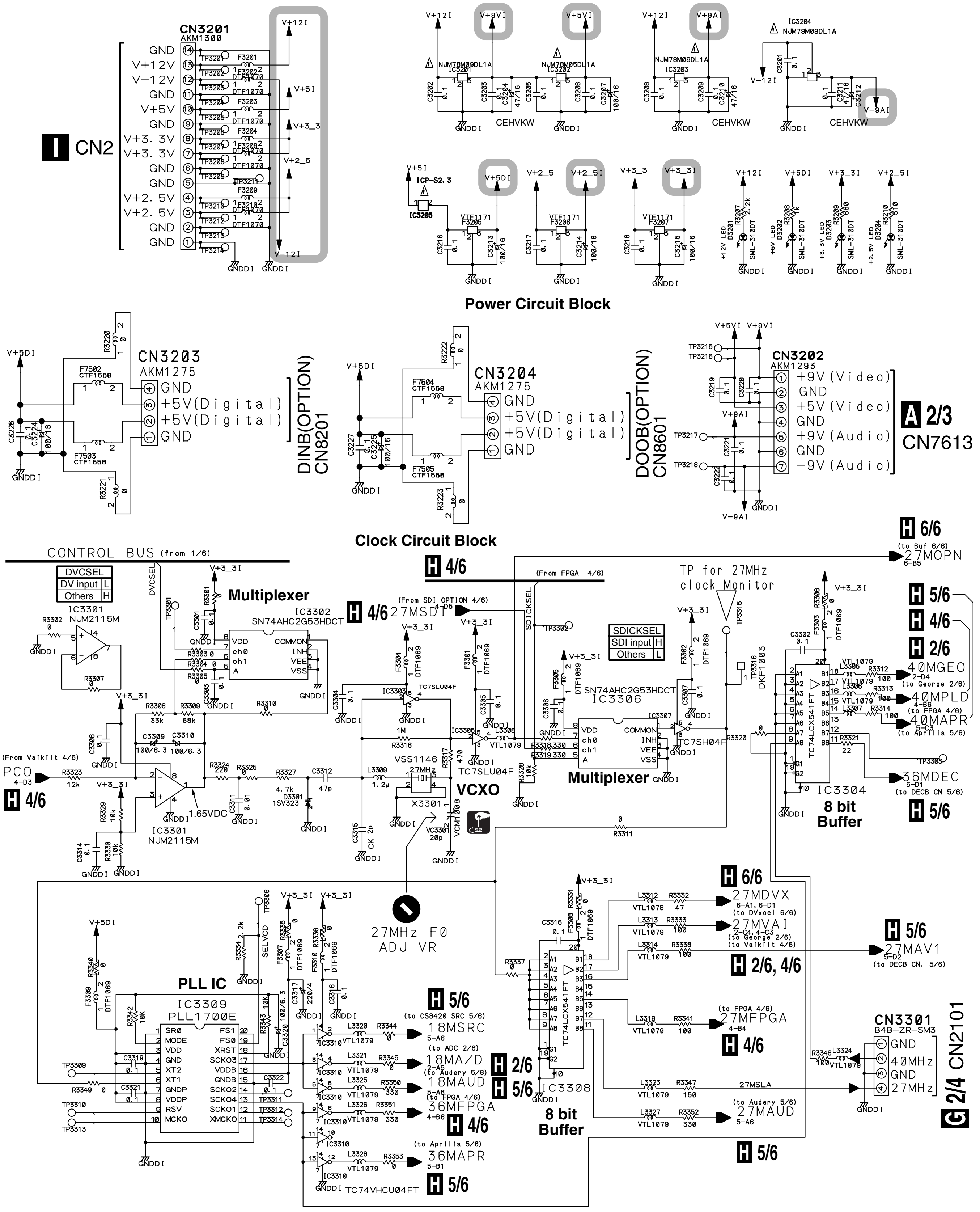
H 1/6 AVIB ASSY (DWV1202)


H 4/6
to FPGA (4/6)
G 2/4
CN2104
CN3001
CKS3930
GNDD
LTC
N. C.
LXINT
INT0
INT3
INT4
INT5
LXBSOUT
LXPROGRAM
LXIRQ2
L_A0 … L_A15
L_D0 … L_D15
L_EN
L_DIR
from George
from ceLynx-DV
from Vaikilt
from Dvxcel
CONTROL BUS
H 2/6 - 6/6
8 bit Buffer
IC3002
IC3003
TC74LCX541FT
CPU ADDRESS BUS
V+3_3I
GNDDI
IC3004
TC74LCX16245AFT
BUS Transeiver
CPU DATA BUS
H 2/6 - 6/6
G 2/4
CN2103
CN3002
XRESET
LXPHRST
LXRSTAU
LXRSTX
VRCS
VRDATA
VRCLK
LXCS40
LXCS56
LXCS41
LXSC52
LXCS23
LXCS55
XCS22X
LXRD
LXWE0
LXWE1
XWAITG
LRDWR
LWE0
LDVCSEL
LDVOEN
LDONE
XWAITV
WDVS
LDBP0 … LDBP3
XIRQ3
LSRCPT
LSRSSO
LSRSSI
LSRSCK
LSRXCS
EDMARQ
EBSACK
EBS0 … EBS7
RESET
V+5DI
to Physical
to Audery
to Dvxcel
TC74VHCT541AFT
IC3005
3 → 5 Converter
CONTROL BUS (to 2/6)
A/D
EVR
to George, Dvxcel, Aprilia ceLynx-DV, Vaikilt, FPGA
Select FPGA CS
ceLynx-DV, FPGA CS
George CS
Vaikilt CS
Aprilia CS (Audery CS)
Aprilia CS
Dvxcel CS
to George, Vaikilt, Aprilia, FPGA
to George, Vaikilt, Aprilia Dvxcel, FPGA
to Aprilia
to George
to ceLynx-DV, Aprilia, FPGA
to Vaikilt
IC3006
8 bit Buffer
H 3/6, 4/6
to PDY076A (4/6)
to FPGA (4/6)
to 27MHzPLL (1/6)
to FPGA (4/6)
H 4/6
from/to Audery (5/6)
H 5/6
from/to SCR (5/6)
H 6/6
CONTROL BUS
From/to DVXCEL (6/6)
H 6/6
IC3007
8 bit Buffer
EBSDW0 … EBSDW7
DVXCEL (6/6)
(R_DAV)
From H 6/6
VNF1109 KN3001
VNF1109 KN3002
VNF1109 KN3003
VNF1109 KN3004
VNF1109 KN3005
VNF1109 KN3006
VNF1109 KN3007

H 1/6

CAUTION : FOR CONTINUED PROTECTION AGAINST
RISK OF FIRE, REPLACE ONLY WITH
SAME TYPE NO. ICP-S2.3, MFD BY ROHM
CO., LTD. FOR IC3205.

(R_DAV) : Recording Signal Route (Digital Audio/Video)



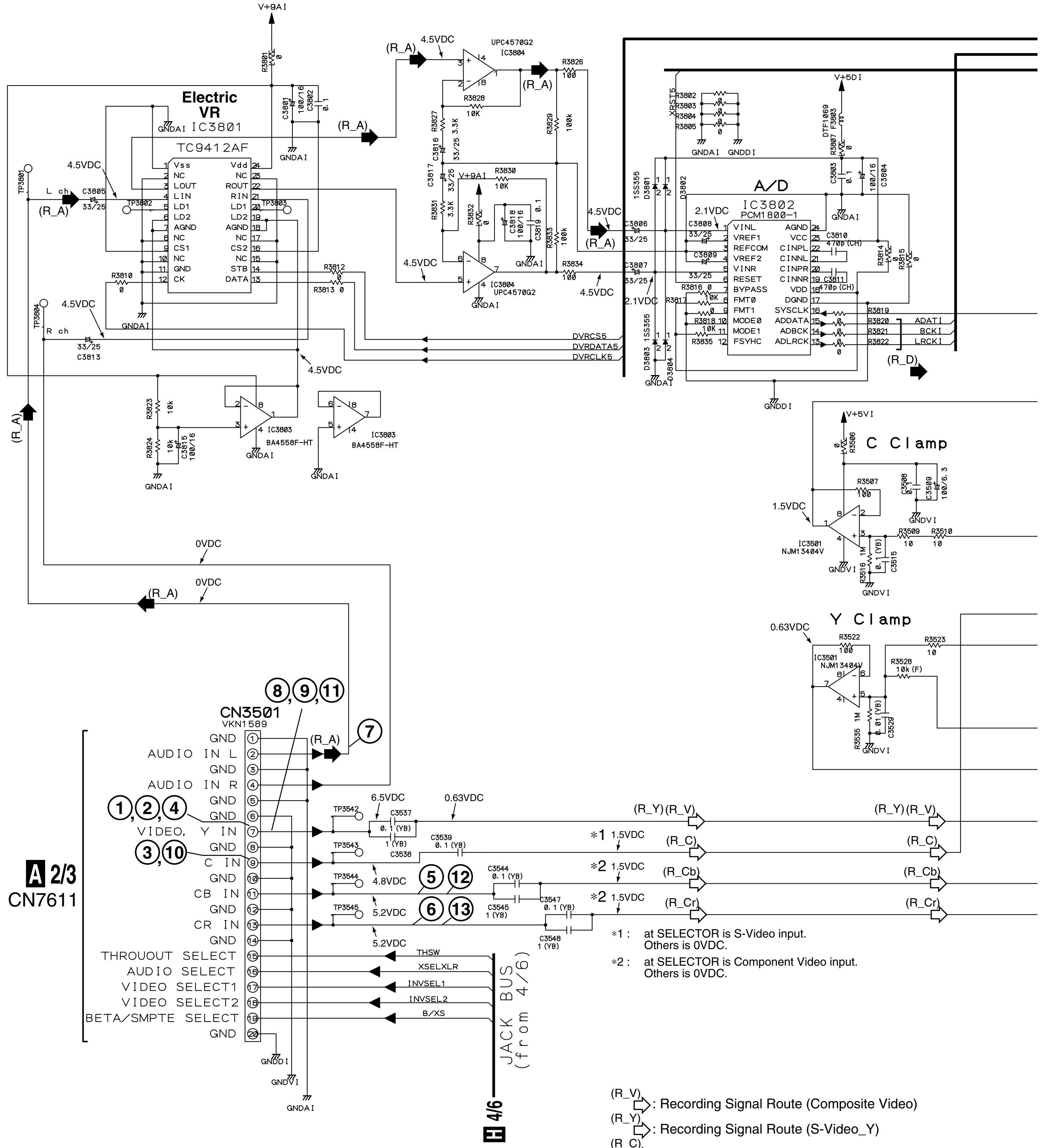
CN3201
AKM1300
I CN2
GND
V+12V
V−12V
V+5V
V+3.3V
V+2.5V
V+12I
V+5I
V+3_3
V+2_5
V−12I
GNDDI
V+9VI
V+5VI
V+9AI
V−9AI
NJM78M09DL1A
NJM78M05DL1A
NJM79M09DL1A
IC3201
IC3202
IC3203
IC3204
CEHVKW
ICP-S2.3
IC3205
VTF1171
V+5DI
V+2_5I
V+3_3I
SML-310DT
Power Circuit Block
CN3203
AKM1275
+5V(Digital)
DINB(OPTION)
CN8201
CN3204
AKM1275
DOOB(OPTION)
CN8601
CN3202
AKM1293
+9V(Video)
+5V(Video)
+9V(Audio)
−9V(Audio)
A 2/3
CN7613
Clock Circuit Block
CONTROL BUS (from 1/6)
DVCSEL
DV input L
Others H
IC3301
NJM2115M
Multiplexer
IC3302
SN74AHC2G53HDCT
H 4/6
27MSDI
SDICKSEL
SDI input H
Others L
IC3306
SN74AHC2G53HDCT
Multiplexer
TP for 27MHz clock Monitor
TC7SLU04F
TC7SH04F
VSS1146
27MHz
X3301
VCXO
VCM1008
PCO
H 4/6
1.65VDC
H 6/6
27MOPN
H 5/6
H 4/6
H 2/6
40MGEO
40MPLD
40MAPR
36MDEC
IC3304
TC74LCX541FT
8 bit Buffer
27MHz F0 ADJ VR
PLL IC
IC3309
PLL1700E
H 5/6
18MSRC
18MA/D
18MAUD
36MFPGA
36MAPR
IC3310
TC74VHCU04FT
H 2/6
H 5/6
H 4/6
IC3308
TC74LCX541FT
8 bit Buffer
H 6/6
27MDVX
27MVAI
27MAV1
H 2/6, 4/6
27MFPGA
27MSLA
27MAUD
CN3301
B4B-ZR-SM3
40MHz
27MHz
G 2/4 CN2101

: The power supply is shown with the marked box.

H 1/6

3.15 AVIB ASSY (2/6)

H 2/6 AVIB ASSY (DWV1202)



V+9AI
R3801 0
C3801 100/16
C3802 0.1
GNDAI
Electric VR
IC3801
TC9412AF
Vss
NC
LOUT
LIN
LD1
LD2
AGND
NC
CS1
NC
GND
CK
Vdd
NC
ROUT
RIN
LD1
LD2
AGND
NC
CS2
NC
STB
DATA
TP3801
TP3802
TP3803
TP3804
L ch
R ch
C3805 33/25
C3813 33/25
R3810 0
R3812 0
R3813 0
4.5VDC
(R_A)
UPC4570G2
IC3804
R3826 100
R3828 10K
R3827 3.3K
R3829 100k
C3816 33/25
C3817 33/25
R3830 10K
V+9AI
R3831 3.3K
R3832 0
C3818 100/16
C3819 0.1
R3833 100k
R3834 100
DVRCS5
DVRDATA5
DVRCLK5
R3823 10k
R3824 10k
C3815 100/16
IC3803
BA4558F-HT
XRST5
R3802
R3803
R3804
R3805
GNDDI
V+5DI
DTF1069
F3803
R3807 0
C3803 0.1
C3804 100/16
1SS355
D3801
D3802
D3803
D3804
A/D
IC3802
PCM1800-1
2.1VDC
C3806 33/25
C3807 33/25
C3808 33/25
C3809 33/25
VINL
VREF1
REFCOM
VREF2
VINR
RESET
BYPASS
FMT0
FMT1
MODE0
MODE1
FSYHC
AGND
VCC
CINPL
CINNL
CINPR
CINNR
VDD
DGND
SYSCLK
ADDATA
ADBCK
ADLRCK
C3810 470p (CH)
C3811 470p (CH)
R3814 0
R3815 0
R3816 0
R3817
R3818 10K
R3835
R3819
R3820
R3821
R3822
ADATI
BCKI
LRCKI
(R_D)
V+5VI
C Clamp
R3506 0
R3507 100
C3508 0.1
C3509 100/6.3
1.5VDC
IC3501
NJM13404V
R3509 10
R3510 10
R3516 1M
C3515 0.1 (YB)
GNDVI
Y Clamp
0.63VDC
R3522 100
R3523 10
R3528 10k (F)
R3535 1M
C3520 0.01 (YB)
0VDC
8, 9, 11
CN3501
VKN1589
GND
AUDIO IN L
GND
AUDIO IN R
GND
GND
VIDEO, Y IN
GND
C IN
GND
CB IN
GND
CR IN
GND
THROUOUT SELECT
AUDIO SELECT
VIDEO SELECT1
VIDEO SELECT2
BETA/SMPTE SELECT
GND
7
1, 2, 4
3, 10
A 2/3
CN7611
TP3542
TP3543
TP3544
TP3545
6.5VDC
0.63VDC
C3537 0.1 (YB)
C3536 1 (YB)
C3539 0.1 (YB)
C3538
4.8VDC
5.2VDC
C3544 0.1 (YB)
C3546
C3547 0.1 (YB)
C3545 1 (YB)
C3548 1 (YB)
5, 12
6, 13
*1 1.5VDC
*2 1.5VDC
(R_Y) (R_V)
(R_C)
(R_Cb)
(R_Cr)
THSW
XSELXLR
INVSEL1
INVSEL2
B/XS
JACK BUS (from 4/6)
H 4/6
GNDDI
GNDVI
GNDAI

*1 : at SELECTOR is S-Video input.
Others is 0VDC.

*2 : at SELECTOR is Component Video input.
Others is 0VDC.

(R_V) ⇨ : Recording Signal Route (Composite Video)

(R_Y) ⇨ : Recording Signal Route (S-Video_Y)

(R_C) ⇨ : Recording Signal Route (S-Video_C)

(R_Cb) ⇨ : Recording Signal Route (Component_Cb)

(R_Cr) ⇨ : Recording Signal Route (Component_Cr)

(R_DV) ⇨ : Recording Signal Route (Digital Video)

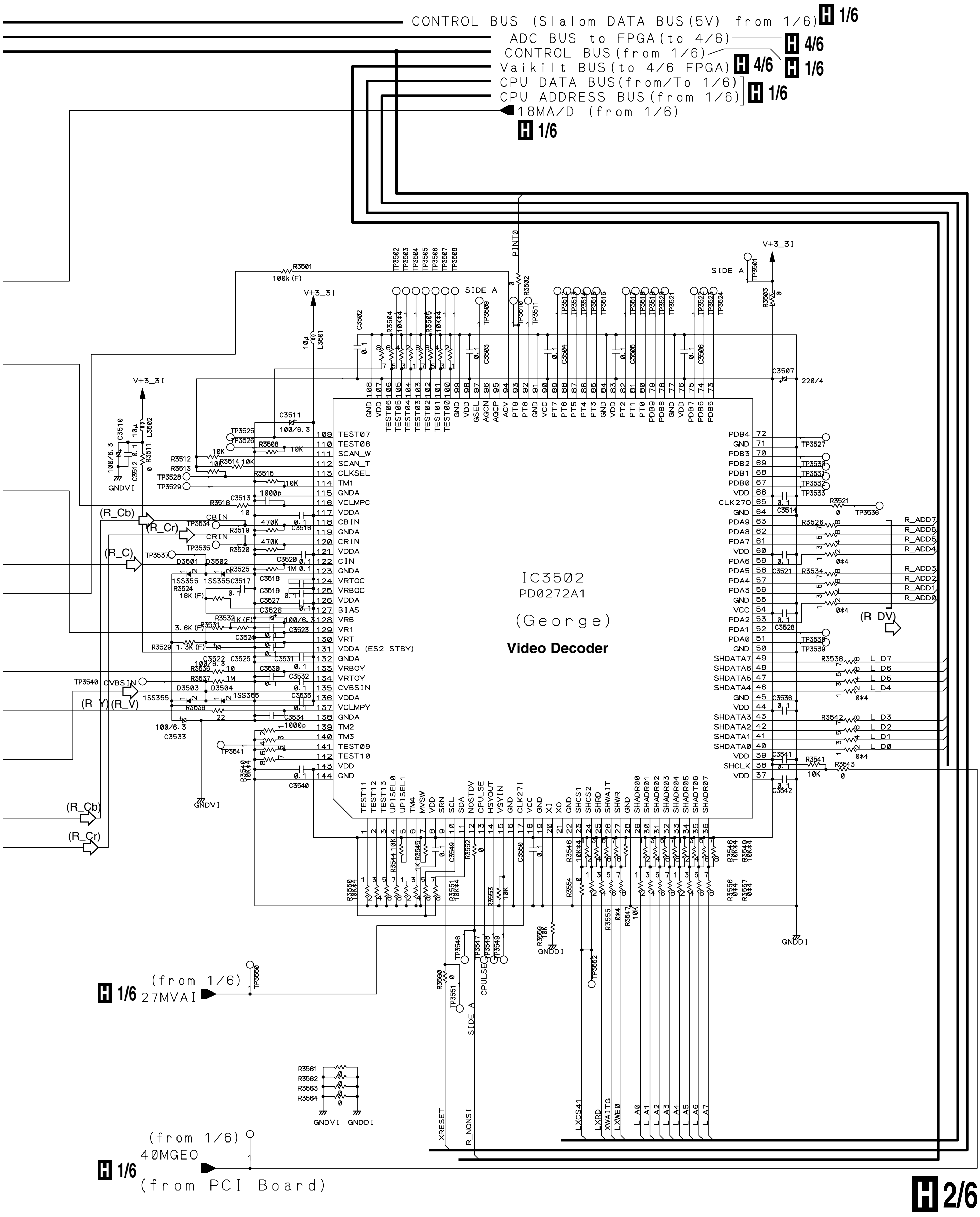
(R_A) ➡ : Recording Signal Route (Analog Audio L ch)

(R_D) ➡ : Recording Signal Route (Digital Audio)

(default)

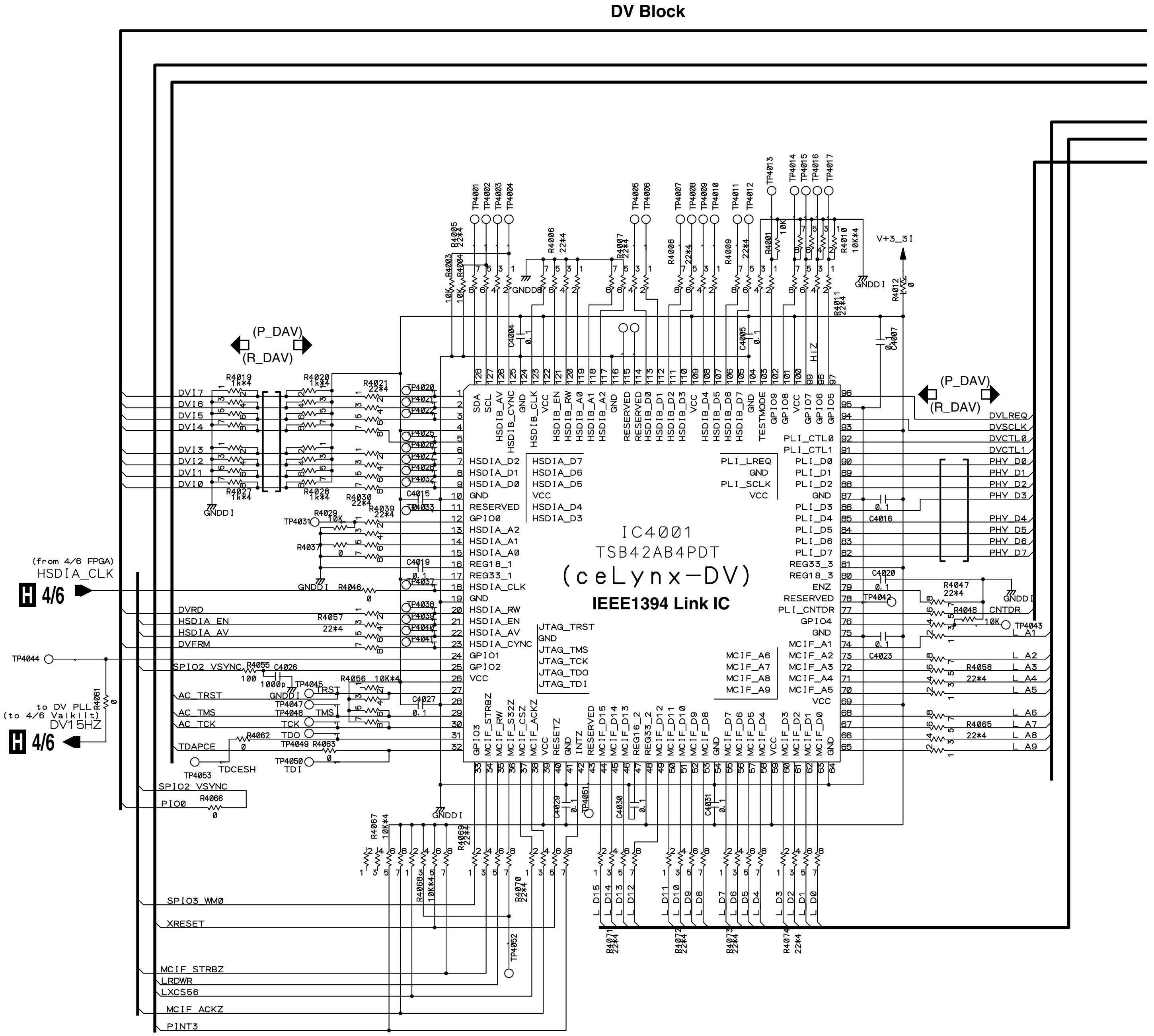
	L	H
THROUOUT SELECT	NON	THROU
AUDIO SELECT	RCA	XLR
VIDEO SELECT 1	CVBS	S
VIDEO SELECT 2	CV/S	YPbPr
BETA/SMPTE SELECT	BETA	SMPTE

H 2/6


CONTROL BUS (Slalom DATA BUS(5V) from 1/6) H 1/6
ADC BUS to FPGA(to 4/6) H 4/6
CONTROL BUS(from 1/6) H 1/6
Vaikilt BUS(to 4/6 FPGA) H 4/6
CPU DATA BUS(from/To 1/6)
CPU ADDRESS BUS(from 1/6) H 1/6
18MA/D (from 1/6)
H 1/6
IC3502
PD0272A1
(George)
Video Decoder
PINT0
V+3_3I
SIDE A
(R_Cb)
(R_Cr)
(R_C)
(R_Y)
(R_V)
(R_DV)
CVBSIN
CBIN
CRIN
R_ADD7
R_ADD6
R_ADD5
R_ADD4
R_ADD3
R_ADD2
R_ADD1
R_ADD0
L_D7
L_D6
L_D5
L_D4
L_D3
L_D2
L_D1
L_D0
GNDVI
GNDDI
H 1/6 (from 1/6) 27MVAI
CPULSE
XRESET
R_NONSI
LXCS41
LXRD
XWAITG
LXWE0
L_A0
L_A1
L_A2
L_A3
L_A4
L_A5
L_A6
L_A7
H 1/6 (from 1/6) 40MGEO (from PCI Board)

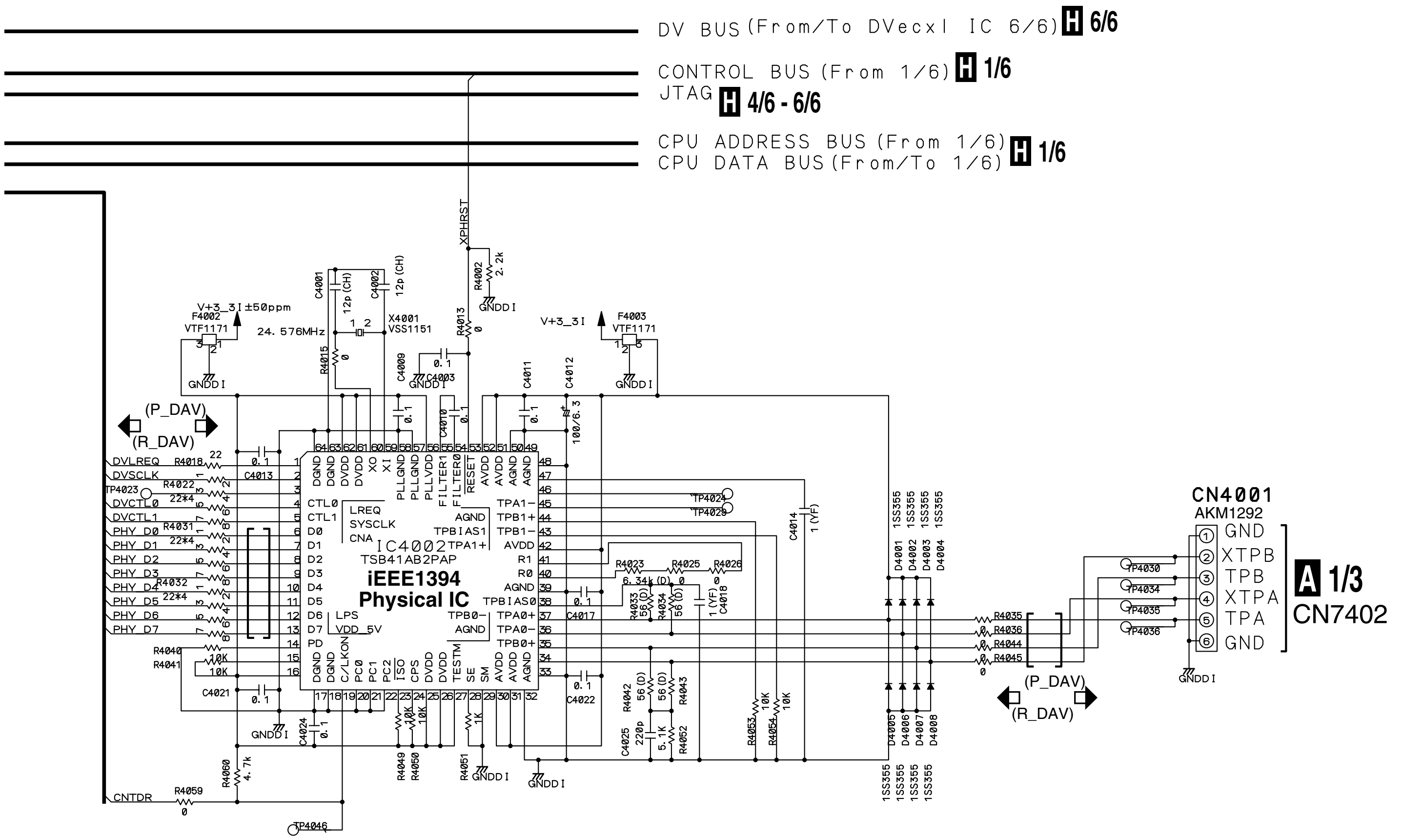
3.16 AVIB ASSY (3/6)

H 3/6 AVIB ASSY (DWV1202)


DV Block
IC4001
TSB42AB4PDT
(ceLynx-DV)
IEEE1394 Link IC
(P_DAV)
(R_DAV)
DVI7
DVI6
DVI5
DVI4
DVI3
DVI2
DVI1
DVI0
GNDDI
(from 4/6 FPGA)
HSDIA_CLK
H 4/6
DVRD
HSDIA_EN
HSDIA_AV
DVFRM
TP4044
SPIO2_VSYNC
AC_TRST
AC_TMS
AC_TCK
TDAPCE
TDCESH
to DV PLL
(to 4/6 Vaikilt)
DV15HZ
H 4/6
SPIO2_VSYNC
PIO0
SPIO3_WM0
XRESET
MCIF_STRBZ
LRDWR
LXCS56
MCIF_ACKZ
PINT3
SDA
SCL
HSDIB_AV
HSDIB_CYNC
GND
HSDIB_CLK
VCC
HSDIB_EN
HSDIB_RW
HSDIB_A0
HSDIB_A1
HSDIB_A2
RESERVED
HSDIB_D0
HSDIB_D1
HSDIB_D2
HSDIB_D3
HSDIB_D4
HSDIB_D5
HSDIB_D6
HSDIB_D7
TESTMODE
GPIO9
GPIO8
GPIO7
GPIO6
GPIO5
HIZ
HSDIA_D2
HSDIA_D1
HSDIA_D0
HSDIA_D7
HSDIA_D6
HSDIA_D5
HSDIA_D4
HSDIA_D3
GPIO0
HSDIA_A2
HSDIA_A1
HSDIA_A0
REG18_1
REG33_1
HSDIA_CLK
HSDIA_RW
HSDIA_EN
HSDIA_AV
HSDIA_CYNC
GPIO1
GPIO2
JTAG_TRST
JTAG_TMS
JTAG_TCK
JTAG_TDO
JTAG_TDI
PLI_LREQ
PLI_SCLK
PLI_CTL0
PLI_CTL1
PLI_D0
PLI_D1
PLI_D2
PLI_D3
PLI_D4
PLI_D5
PLI_D6
PLI_D7
REG33_3
REG18_3
ENZ
PLI_CNTDR
GPIO4
MCIF_A1
MCIF_A2
MCIF_A3
MCIF_A4
MCIF_A5
MCIF_A6
MCIF_A7
MCIF_A8
MCIF_A9
GPIO3
MCIF_STRBZ
MCIF_RW
MCIF_S32Z
MCIF_CSZ
MCIF_ACKZ
RESETZ
INTZ
MCIF_D15
MCIF_D14
MCIF_D13
REG16_2
REG33_2
MCIF_D12
MCIF_D11
MCIF_D10
MCIF_D9
MCIF_D8
MCIF_D7
MCIF_D6
MCIF_D5
MCIF_D4
MCIF_D3
MCIF_D2
MCIF_D1
MCIF_D0
DVLREQ
DVSCLK
DVCTL0
DVCTL1
PHY_D0
PHY_D1
PHY_D2
PHY_D3
PHY_D4
PHY_D5
PHY_D6
PHY_D7
CNTDR
L_A1
L_A2
L_A3
L_A4
L_A5
L_A6
L_A7
L_A8
L_A9
L_D15
L_D14
L_D13
L_D12
L_D11
L_D10
L_D9
L_D8
L_D7
L_D6
L_D5
L_D4
L_D3
L_D2
L_D1
L_D0
V+3_3I
GNDDI
C4004
C4005
C4007
C4015
C4016
C4019
C4020
C4023
C4026
C4027
C4029
C4030
C4031
R4019 1k*4
R4020 1k*4
R4021 22*4
R4027 1k*4
R4028 1k*4
R4030 22*4
R4039 22*4
R4029 10K
R4037
R4046 0
R4047 22*4
R4048 10K
R4055 100
R4056 10K*4
R4057 22*4
R4058 22*4
R4061 0
R4062 0
R4063 0
R4065 22*4
R4066 0
R4067 10K*4
R4068 10K*4
R4069 22*4
R4070 22*4
R4071 22*4
R4072 22*4
R4073 22*4
R4074 22*4
R4001 10K
R4003 10K
R4004 10K
R4005 22*4
R4006 22*4
R4007 22*4
R4008 22*4
R4009 22*4
R4010 10K*4
R4011 22*4
R4012 0
TP4001
TP4002
TP4003
TP4004
TP4005
TP4006
TP4007
TP4008
TP4009
TP4010
TP4011
TP4012
TP4013
TP4014
TP4015
TP4016
TP4017
TP4031
TP4042
TP4043
TP4045
TP4047
TP4048
TP4049
TP4050
TP4051
TP4052
TP4053
TRST
TMS
TCK
TDO
TDI
1000p

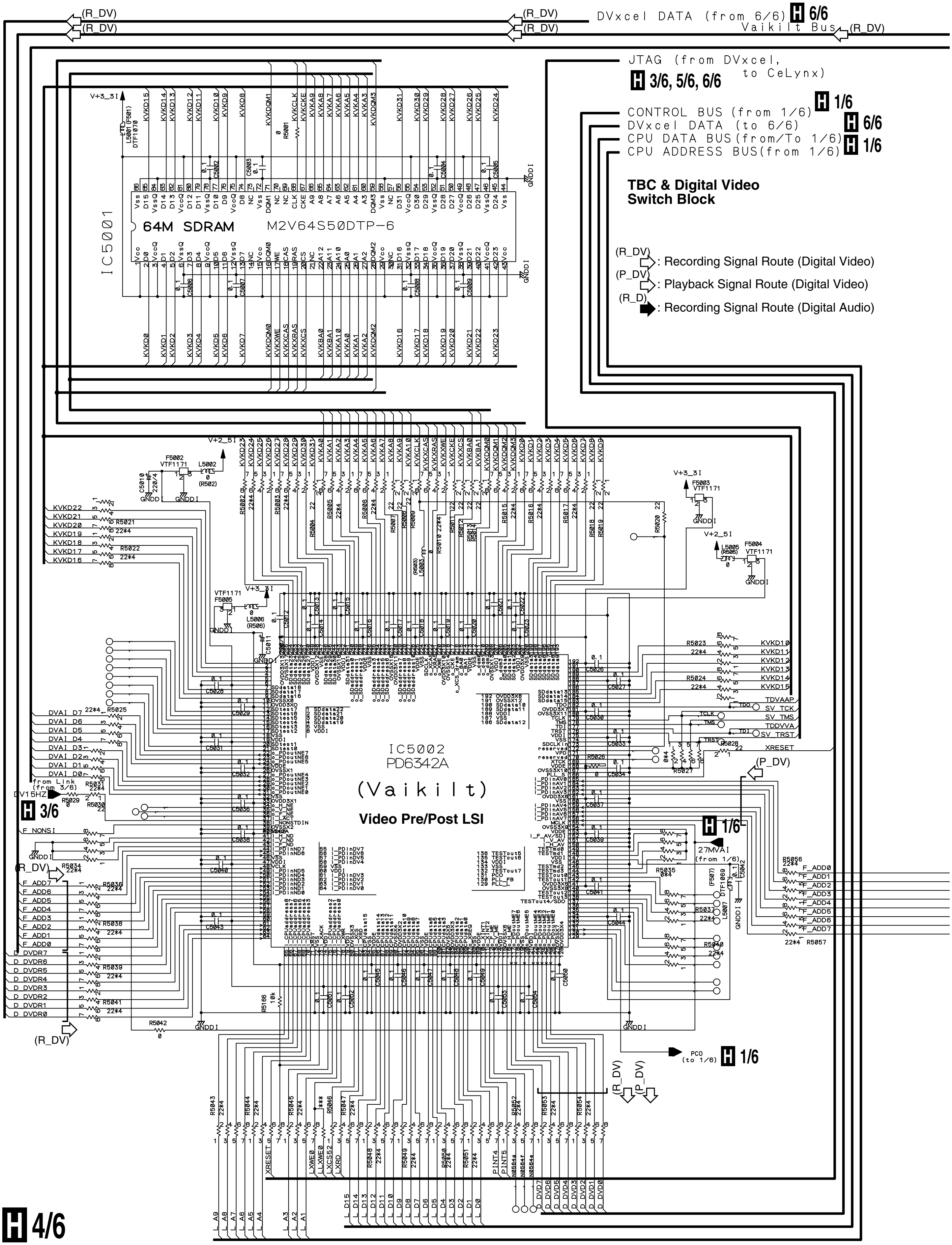
H 3/6

(R_DAV) : Recording Signal Route (Digital Audio/Video)
(P_DAV) : Playback Signal Route (Digital Audio/Video)



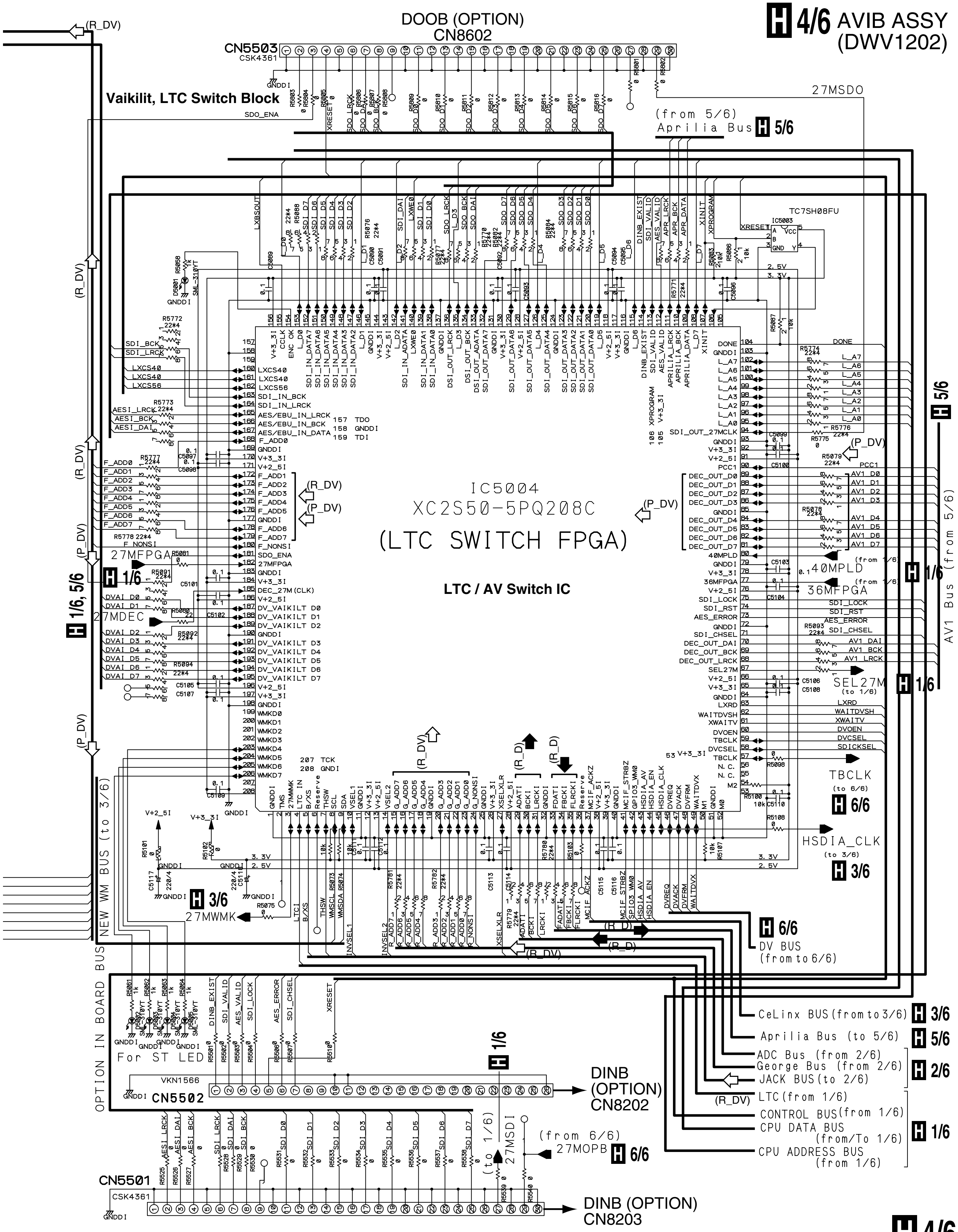
DV BUS (From/To DVecxl IC 6/6) H 6/6
CONTROL BUS (From 1/6) H 1/6
JTAG H 4/6 - 6/6
CPU ADDRESS BUS (From 1/6)
CPU DATA BUS (From/To 1/6) H 1/6
XPHRST
R4002 2.2k
GNDDI
C4001 12p (CH)
C4002 12p (CH)
X4001 VSS1151
24.576MHz
V+3_3I ±50ppm
F4002 VTF1171
R4013 0
R4015 0
C4009
C4003 0.1
C4011
C4012 100/6.3
V+3_3I
F4003 VTF1171
(P_DAV)
(R_DAV)
DVLREQ
DVSCLK
TP4023
DVCTL0
DVCTL1
PHY D0
PHY D1
PHY D2
PHY D3
PHY D4
PHY D5
PHY D6
PHY D7
R4018 22
R4022 22*4
R4031 22*4
R4032 22*4
C4013 0.1
R4040 10K
R4041 10K
C4021 0.1
C4024 0.1
C4010 0.1
IC4002
TSB41AB2PAP
iEEE1394
Physical IC
CTL0
CTL1
D0
D1
D2
D3
D4
D5
D6
D7
PD
LREQ
SYSCLK
CNA
LPS
VDD_5V
DGND
DVDD
XO
XI
PLLGND
PLLVDD
FILTER1
FILTER0
RESET
AVDD
AGND
TPA1−
TPB1+
TPB1−
TPBIAS1
TPA1+
R1
R0
TPBIAS0
TPA0+
TPA0−
TPB0+
TPB0−
C/LKON
PC0
PC1
PC2
ISO
CPS
TESTM
SE
SM
TP4024
TP4029
C4014 1 (YF)
C4017 0.1
C4022 0.1
R4023 6.34k (D)
R4025 0
R4026 0
C4018 1 (YF)
R4033 56 (D)
R4034 56 (D)
R4042 56 (D)
R4043 56 (D)
C4025 220p
R4052 5.1K
R4049 10K
R4050 10K
R4051 1K
R4053 10K
R4054 10K
D4001 D4002 D4003 D4004 1SS355
D4005 D4006 D4007 D4008 1SS355
R4035 0
R4036 0
R4044 0
R4045 0
TP4030
TP4034
TP4035
TP4036
CN4001
AKM1292
1 GND
2 XTPB
3 TPB
4 XTPA
5 TPA
6 GND
A 1/3
CN7402
CNTDR
R4059 0
R4060 4.7k
TP4046
GNDDI

3.17 AVIB ASSY (4/6)


(R_DV)
(R_DV)
DVxcel DATA (from 6/6) H 6/6
Vaikilt Bus
JTAG (from DVxcel, to CeLynx) H 3/6, 5/6, 6/6
CONTROL BUS (from 1/6) H 1/6
DVxcel DATA (to 6/6) H 6/6
CPU DATA BUS(from/To 1/6) H 1/6
CPU ADDRESS BUS(from 1/6)
TBC & Digital Video Switch Block
(R_DV) : Recording Signal Route (Digital Video)
(P_DV) : Playback Signal Route (Digital Video)
(R_D) : Recording Signal Route (Digital Audio)
IC5001
64M SDRAM
M2V64S50DTP-6
IC5002
PD6342A
(Vaikilt)
Video Pre/Post LSI
V+3_3I
V+2_5I
GNDDI
DVAI D7
DVAI D6
DVAI D5
DVAI D4
DVAI D3
DVAI D2
DVAI D1
DVAI D0
from Link (from 3/6)
DV15HZ
H 3/6
F_NONSI
F_ADD7
F_ADD6
F_ADD5
F_ADD4
F_ADD3
F_ADD2
F_ADD1
F_ADD0
D_DVDR7
D_DVDR6
D_DVDR5
D_DVDR4
D_DVDR3
D_DVDR2
D_DVDR1
D_DVDR0
KVKD10
KVKD11
KVKD12
KVKD13
KVKD14
KVKD15
TDVAAP
SV_TCK
SV_TMS
TDDVVA
SV_TRST
XRESET
(P_DV)
H 1/6
27MVAI (from 1/6)
PCO (to 1/6) H 1/6
XRESET
LXWE0
LLXWE0
LXCS52
LXRD
PINT4
PINT5
L_A9
L_A8
L_A7
L_A6
L_A5
L_A4
L_A3
L_A2
L_A1
L_D15
L_D14
L_D13
L_D12
L_D11
L_D10
L_D9
L_D8
L_D7
L_D6
L_D5
L_D4
L_D3
L_D2
L_D1
L_D0
P_DVD7
P_DVD6
P_DVD5
P_DVD4
P_DVD3
P_DVD2
P_DVD1
P_DVD0
A
B
C
D
E
F

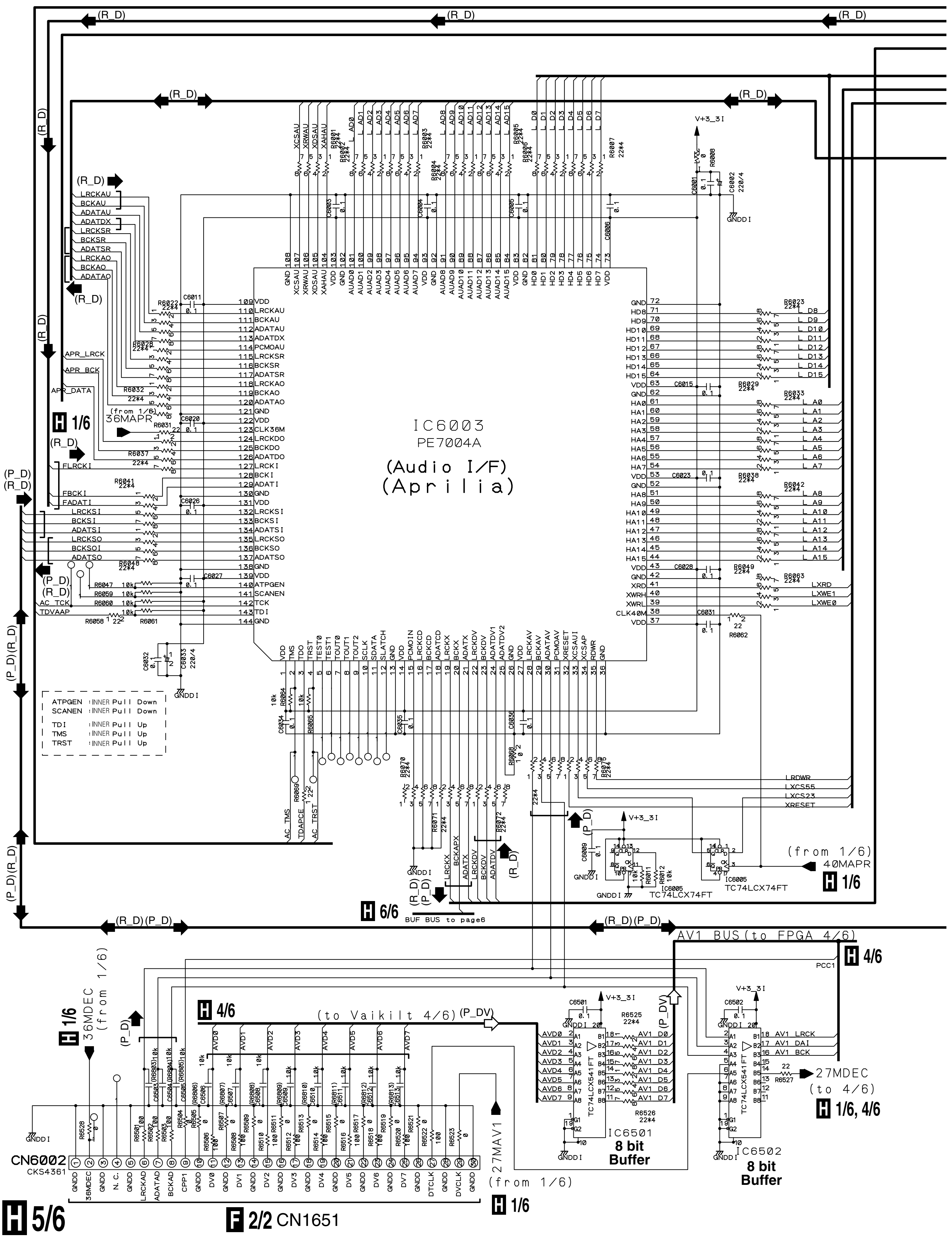
H 4/6

H 4/6 AVIB ASSY (DWV1202)

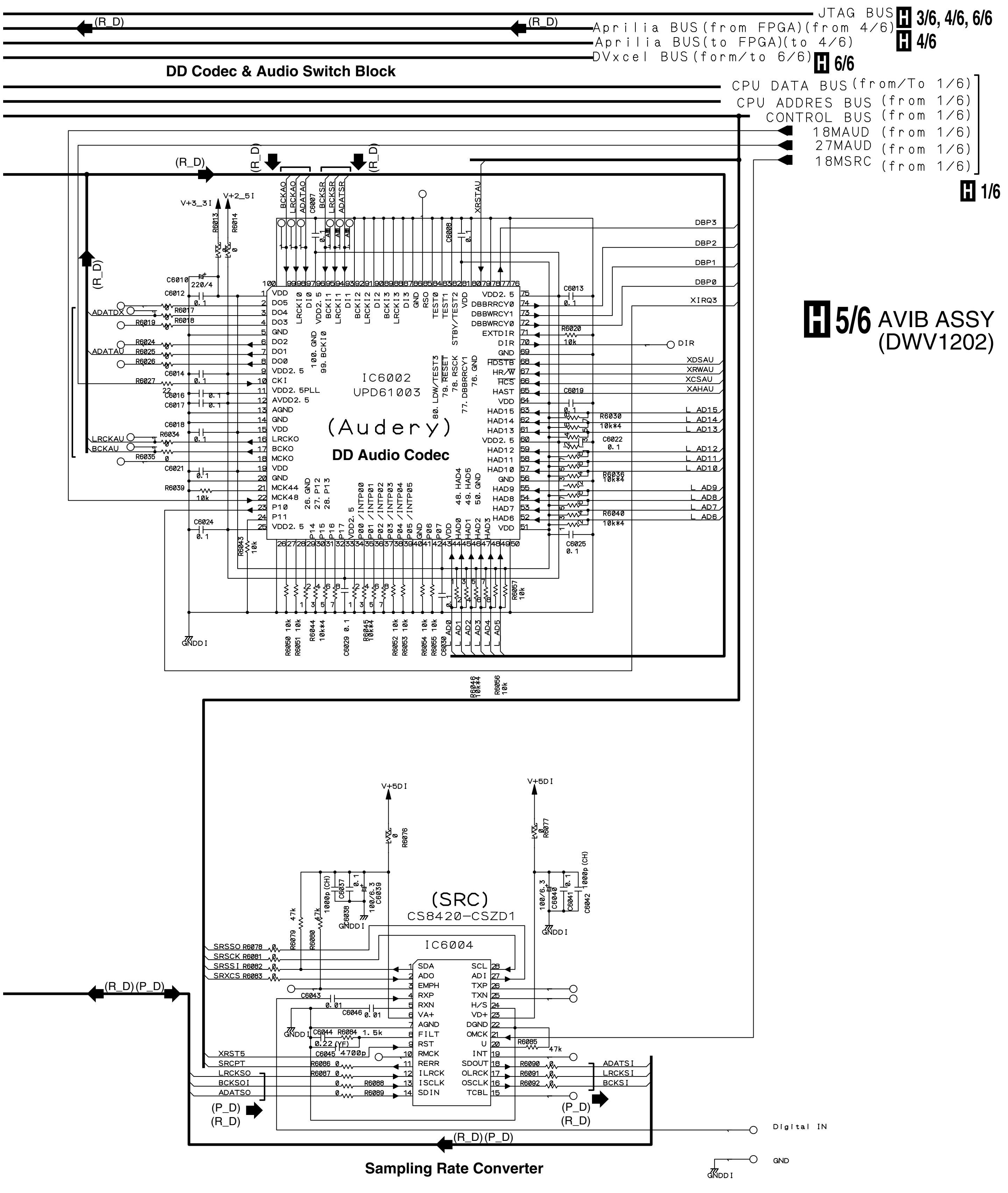


DOOB (OPTION)
CN8602
CN5503
CSK4361
Vaikilit, LTC Switch Block
SDO_ENA
(from 5/6)
Aprilia Bus H 5/6
27MSDO
TC7SH08FU
IC5003
IC5004
XC2S50-5PQ208C
(LTC SWITCH FPGA)
LTC / AV Switch IC
(R_DV)
(P_DV)
27MFPGA
H 1/6
H 1/6, 5/6
27MDEC
40MPLD
36MFPGA
SEL27M
TBCLK
HSDIA_CLK
AV1 Bus (from 5/6)
H 5/6
H 6/6
H 3/6
27MWMK
NEW WM BUS (to 3/6)
OPTION IN BOARD BUS
DV BUS
(from to 6/6)
(R_D)
CeLinx BUS(from to 3/6) H 3/6
Aprilia Bus (to 5/6) H 5/6
ADC Bus (from 2/6)
George Bus (from 2/6)
JACK BUS(to 2/6)
H 2/6
LTC(from 1/6)
CONTROL BUS(from 1/6)
CPU DATA BUS (from/To 1/6)
CPU ADDRESS BUS (from 1/6)
H 1/6
For ST LED
VKN1566
CN5502
DINB (OPTION) CN8202
(to 1/6)
27MSDI
(from 6/6)
27MOPB H 6/6
CN5501
CSK4361
DINB (OPTION) CN8203

3.18 AVIB ASSY (5/6)



IC6003
PE7004A
(Audio I/F)
(Aprilia)
(R_D)
(P_D)
(P_D)(R_D)
H 1/6
(from 1/6)
36MAPR
LRCKAU
BCKAU
ADATAU
ADATDX
LRCKSR
BCKSR
ADATSR
LRCKAO
BCKAO
ADATAO
APR_LRCK
APR_BCK
APR_DATA
FLRCKI
FBCKI
FADATI
LRCKSI
BCKSI
ADATSI
LRCKSO
BCKSOI
ADATSO
AC_TCK
TDVAAP
ATPGEN :INNER Pull Down
SCANEN :INNER Pull Down
TDI :INNER Pull Up
TMS :INNER Pull Up
TRST :INNER Pull Up
AC_TMS
TDAPCE
AC_TRST
GNDDI
V+3_3I
L_D8
L_D9
L_D10
L_D11
L_D12
L_D13
L_D14
L_D15
L_A0
L_A1
L_A2
L_A3
L_A4
L_A5
L_A6
L_A7
L_A8
L_A9
L_A10
L_A11
L_A12
L_A13
L_A14
L_A15
LXRD
LXWE1
LXWE0
LRDWR
LXCS55
LXCS23
XRESET
(from 1/6)
40MAPR
H 1/6
IC6005
TC74LCX74FT
H 6/6
BUF BUS to page6
LRCKX
BCKAPX
ADATX
LRCKDV
BCKDV
ADATDV
AV1 BUS(to FPGA 4/6)
H 4/6
PCC1
H 1/6
36MDEC
(from 1/6)
H 4/6
(to Vaikilt 4/6)
(P_DV)
AVD0
AVD1
AVD2
AVD3
AVD4
AVD5
AVD6
AVD7
AV1_D0
AV1_D1
AV1_D2
AV1_D3
AV1_D4
AV1_D5
AV1_D6
AV1_D7
AV1_LRCK
AV1_DAI
AV1_BCK
IC6501
8 bit
Buffer
IC6502
8 bit
Buffer
TC74LCX541FT
27MDEC
(to 4/6)
H 1/6, 4/6
27MAV1
(from 1/6)
H 1/6
CN6002
CKS4361
GNDD
36MDEC
GNDD
N.C.
GNDD
LRCKAD
ADATAD
BCKAD
CPP1
GNDD
DV0
GNDD
DV1
GNDD
DV2
GNDD
DV3
GNDD
DV4
GNDD
DV5
GNDD
DV6
GNDD
DV7
GNDD
DTCLK
GNDD
DVCLK
GNDD
H 5/6
F 2/2 CN1651



JTAG BUS H 3/6, 4/6, 6/6
Aprilia BUS(from FPGA)(from 4/6)
Aprilia BUS(to FPGA)(to 4/6) H 4/6
DVxcel BUS(form/to 6/6) H 6/6
DD Codec & Audio Switch Block
CPU DATA BUS(from/To 1/6)
CPU ADDRES BUS (from 1/6)
CONTROL BUS (from 1/6)
18MAUD (from 1/6)
27MAUD (from 1/6)
18MSRC (from 1/6)
H 1/6
(R_D)
H 5/6 AVIB ASSY
(DWV1202)
IC6002
UPD61003
(Audery)
DD Audio Codec
ADATDX
ADATAU
LRCKAU
BCKAU
BCKAO
LRCKAO
ADATAO
BCKSR
LRCKSR
ADATSR
XRSTAU
DBP3
DBP2
DBP1
DBP0
XIRQ3
DIR
XDSAU
XRWAU
XCSAU
XAHAU
L_AD15
L_AD14
L_AD13
L_AD12
L_AD11
L_AD10
L_AD9
L_AD8
L_AD7
L_AD6
AD0
AD1
AD2
AD3
AD4
AD5
V+3_3I
V+2_5I
GNDDI
V+5DI
(SRC)
CS8420-CSZD1
IC6004
SRSSO
SRSCK
SRSSI
SRXCS
XRST5
SRCPT
LRCKSO
BCKSOI
ADATSO
ADATSI
LRCKSI
BCKSI
(R_D)(P_D)
(P_D)
(R_D)
Digital IN
GND
Sampling Rate Converter

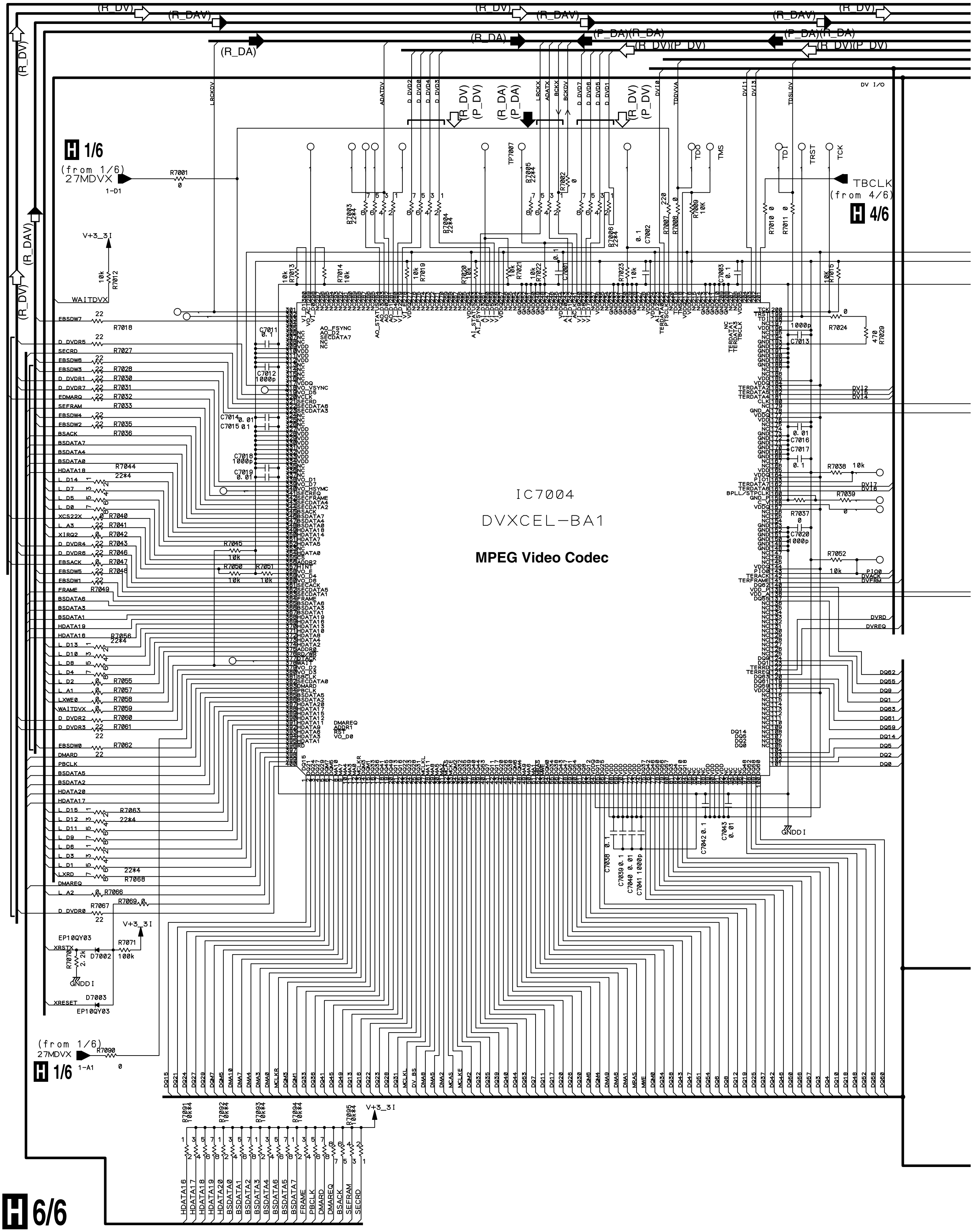
(P_DV) : Playback Signal Route (Digital Video)

(R_D) : Recording Signal Route (Digital Audio)

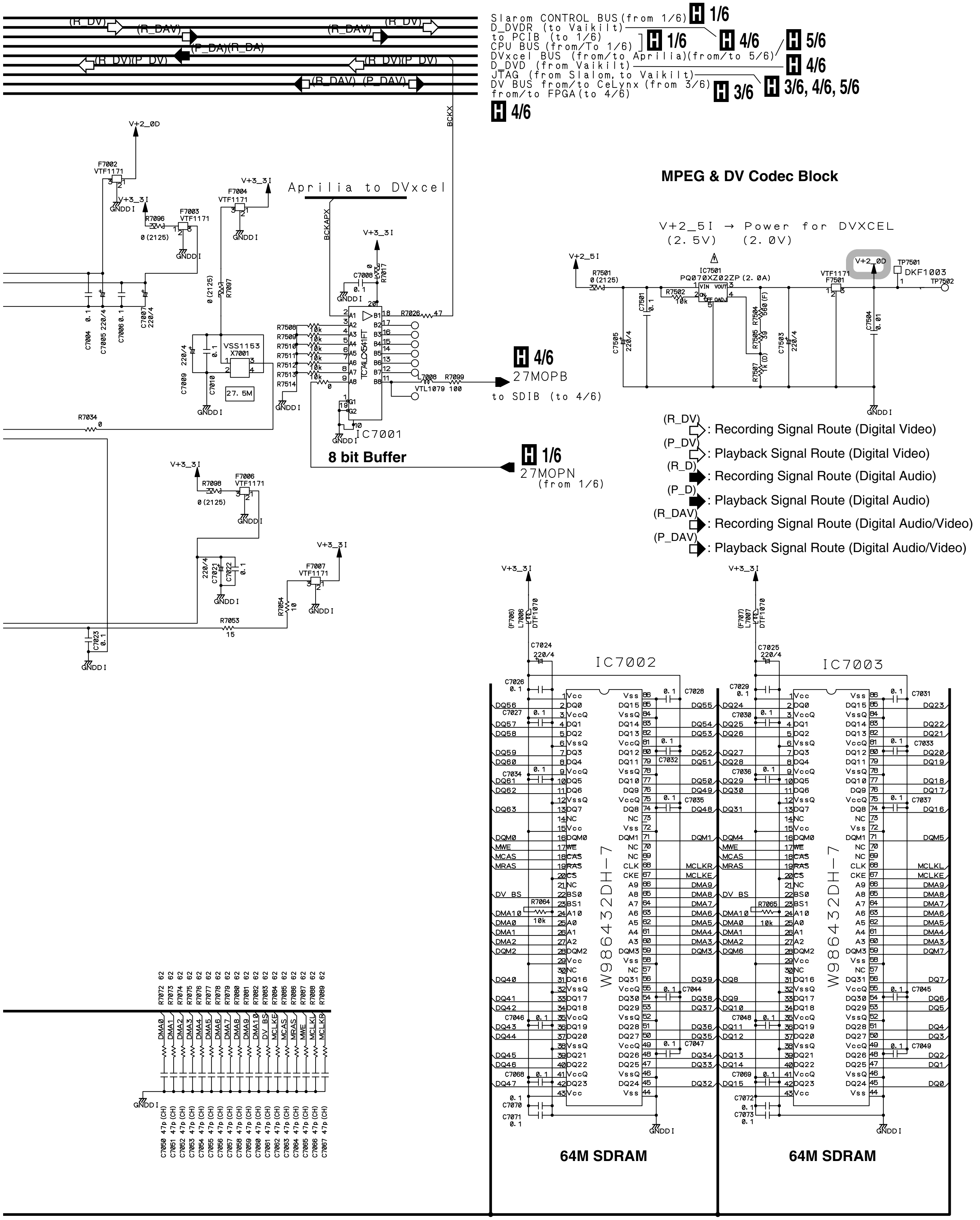
(P_D) : Playback Signal Route (Digital Audio)

3.19 AVIB ASSY (6/6)

H 6/6 AVIB ASSY (DWV1202)


A
B
C
D
E
F
(R_DV)
(R_DAV)
(R_DA)
(P_DA)(R_DA)
(R_DV)(P_DV)
DV I/O
H 1/6
(from 1/6)
27MDVX
1-D1
R7001
0
V+3_3I
R7012
10k
WAITDVX
TP7007
TDO
TMS
TDI
TRST
TCK
TBCLK
(from 4/6)
H 4/6
IC7004
DVXCEL-BA1
MPEG Video Codec
EBSDW7
D_DVDR5
SECRD
EBSDW6
EBSDW3
D_DVDR1
D_DVDR7
EDMARQ
SEFRAM
EBSDW4
EBSDW2
BSACK
BSDATA7
BSDATA4
BSDATA0
HDATA18
XCS22X
XIRQ2
FRAME
BSDATA6
BSDATA3
BSDATA1
HDATA19
HDATA16
LXWE0
DMARD
PBCLK
BSDATA5
BSDATA2
HDATA20
HDATA17
LXRD
DMAREQ
EP10QY03
XRSTX
R7070
2.2k
D7002
R7071
100k
GNDDI
D7003
XRESET
(from 1/6)
27MDVX
R7090
H 1/6
1-A1
0
R7091
R7092
R7093
R7094
R7095
10k*4
V+3_3I
HDATA16
HDATA17
HDATA18
HDATA19
HDATA20
BSDATA0
BSDATA1
BSDATA2
BSDATA3
BSDATA4
BSDATA5
BSDATA6
BSDATA7
FRAME
PBCLK
DMARD
DMAREQ
BSACK
SEFRAM
SECRD
DVRD
DVREQ
DVACK
DVFRM
C7042 0.1
C7043 0.01
C7038 0.1
C7039 0.1
C7040 0.01
C7041 1000p
H 6/6

MPEG & DV Codec Block



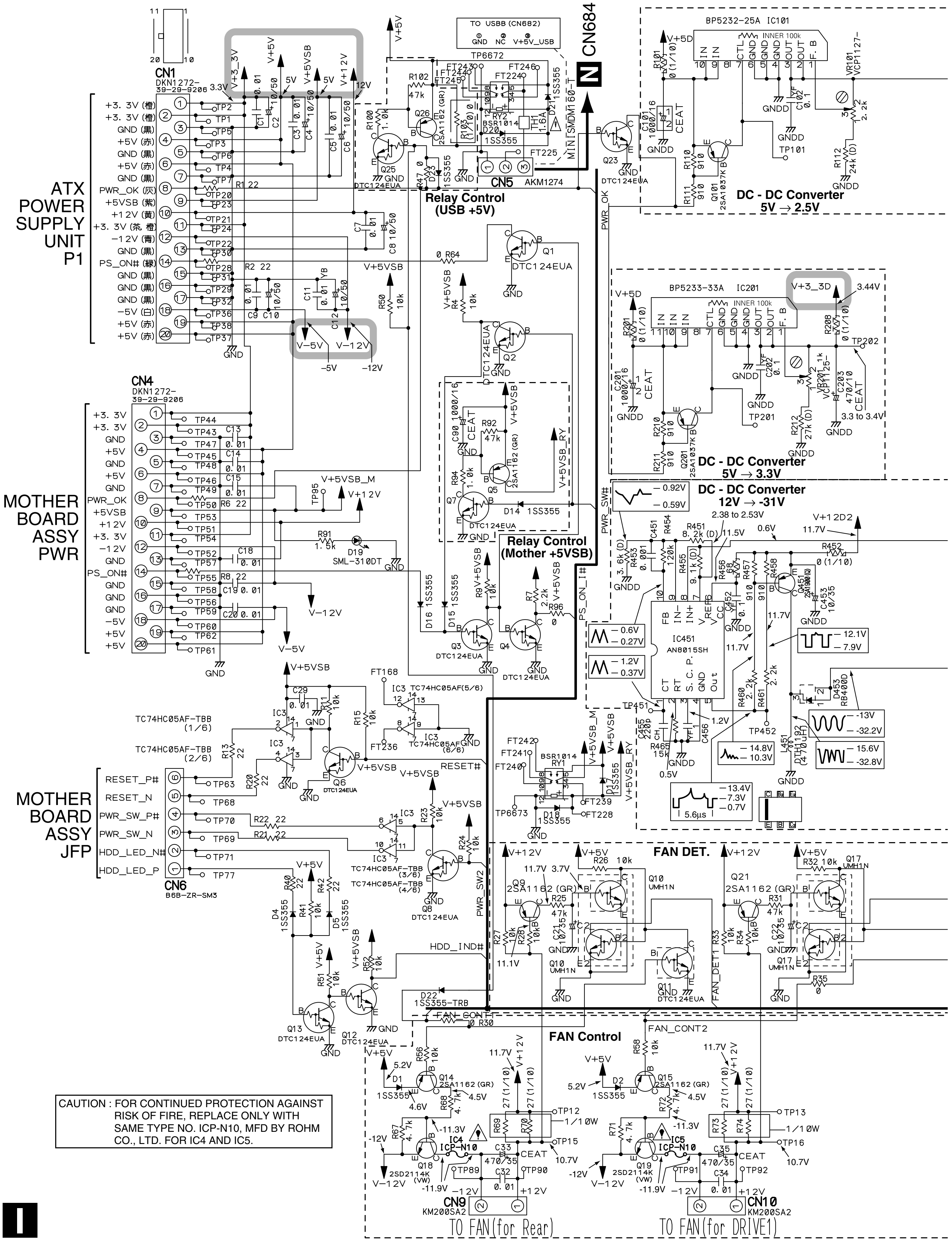
Slarom CONTROL BUS (from 1/6) H 1/6
D_DVDR (to Vaikilt) H 4/6
to PCIB (to 1/6)
CPU BUS (from/To 1/6) H 1/6
DVxcel BUS (from/to Aprilia)(from/to 5/6) H 5/6
D_DVD (from Vaikilt) H 4/6
JTAG (from Slalom, to Vaikilt) H 3/6, 4/6, 5/6
DV BUS from/to CeLynx (from 3/6) H 3/6
from/to FPGA (to 4/6) H 4/6
(R_DV) (R_DAV) (P_DA)(R_DA) (R_DV)(P_DV) (R_DAV) (P_DAV)
BCKX
BCKAPX
Aprilia to DVxcel
V+2_0D
V+3_3I
GNDDI
F7002 VTF1171
F7003 VTF1171
F7004 VTF1171
F7006 VTF1171
F7007 VTF1171
R7096 0 (2125)
R7097 0 (2125)
R7098 0 (2125)
C7004 0.1
C7005 220/4
C7006 0.1
C7007 220/4
C7008 0.1
R7017 0
C7009 220/4
C7010 0.1
VSS1153 X7001
27.5M
R7508 R7509 R7510 R7511 R7512 R7513 10k
R7514 0
R7026 47
R7099 100
L7008 VTL1079
TC74LCX541FT
IC7001
8 bit Buffer
H 4/6 27MOPB to SDIB (to 4/6)
H 1/6 27MOPN (from 1/6)
R7034 0
C7021 220/4
C7022 0.1
R7054 10
R7053 15
C7023 0.1
V+2_5I → Power for DVXCEL
(2.5V) (2.0V)
V+2_5I
R7501 0 (2125)
IC7501 PQ070XZ02ZP (2.0A)
R7502 10k
R7504 560 (F)
R7505 39
R7507 1k (D)
C7501 0.1
C7505 220/4
C7503 220/4
C7504 0.01
VTF1171 F7501
V+2_0D
TP7501 DKF1003
TP7502
(F706) L7006 DTF1070
(F707) L7007 DTF1070
C7024 220/4
C7025 220/4
IC7002
IC7003
W986432DH-7
64M SDRAM
64M SDRAM
R7064 10k
R7065 10k
DQ0–DQ63 DQM0–DQM7 MWE MCAS MRAS DV BS DMA0–DMA10 MCLKR MCLKE MCLKL MCLKE
R7072–R7089 62
C7050–C7067 47p (CH)

(R_DV): Recording Signal Route (Digital Video)
(P_DV): Playback Signal Route (Digital Video)
(R_D): Recording Signal Route (Digital Audio)
(P_D): Playback Signal Route (Digital Audio)
(R_DAV): Recording Signal Route (Digital Audio/Video)
(P_DAV): Playback Signal Route (Digital Audio/Video)

▭ : The power supply is shown with the marked box.

H 6/6

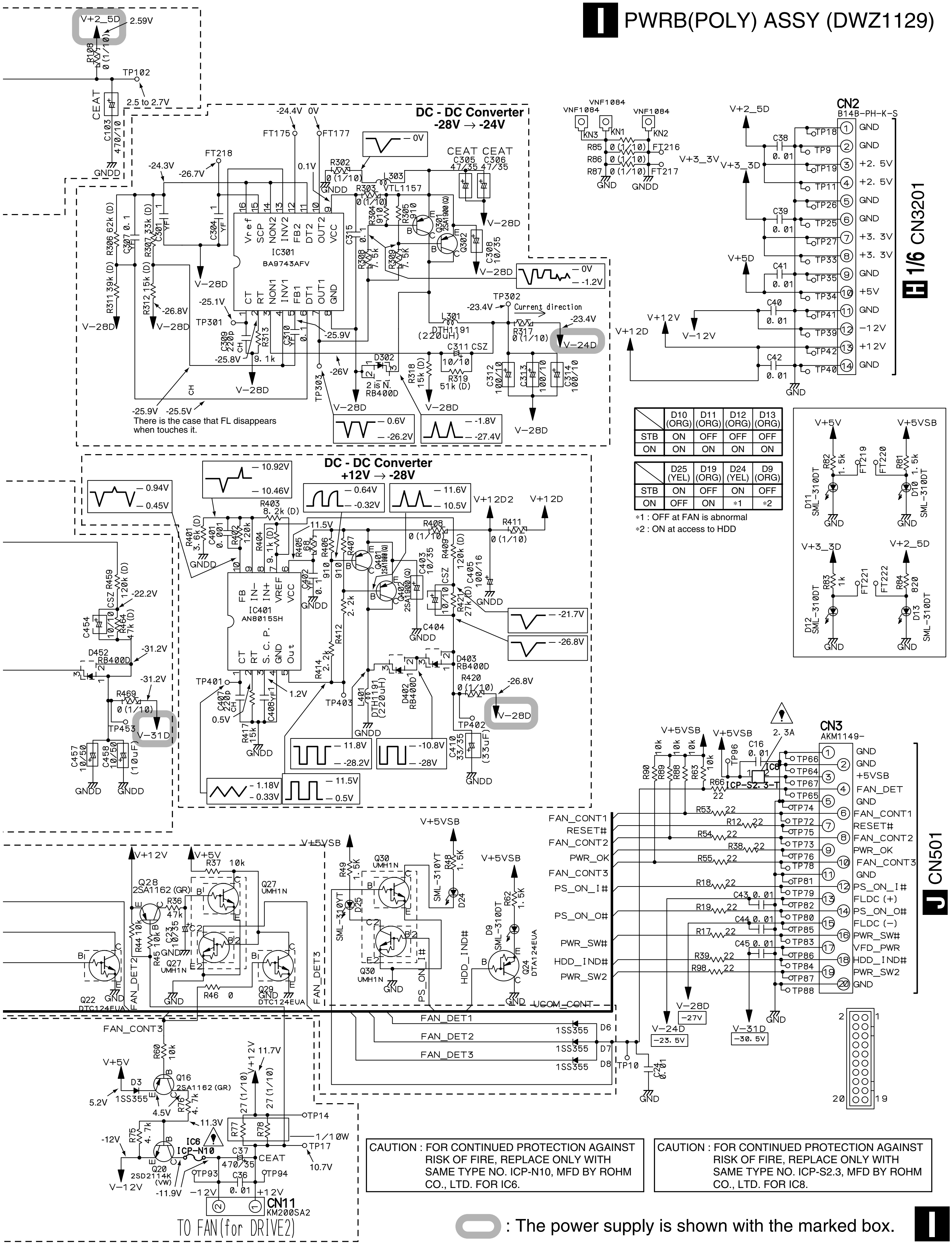
3.20 PWRB(POLY) ASSY



CN1
DKN1272-39-29-9206
ATX POWER SUPPLY UNIT P1
+3.3V (橙)
+3.3V (橙)
GND (黒)
+5V (赤)
GND (黒)
+5V (赤)
GND (黒)
PWR_OK (灰)
+5VSB (紫)
+12V (黄)
+3.3V (茶 橙)
−12V (青)
GND (黒)
PS_ON# (緑)
GND (黒)
GND (黒)
GND (黒)
−5V (白)
+5V (赤)
+5V (赤)
V+3_3V
V+5V
V+5VSB
V+12V
V−5V
V−12V
TO USBB (CN682)
GND NC V+5V_USB
TP6672
N CN684
MINISMDM160-T
CN5 AKM1274
BSR1014
RY2
TH1 1.6A
Relay Control (USB +5V)
Q25 DTC124EUA
Q26 2SA1162 (GR)
Q23 DTC124EUA
BP5232-25A IC101
INNER 100k
IN IN CTL GND GND GND OUT OUT F. B
VR101 VCP1127-
Q101 2SA1037K
DC - DC Converter 5V → 2.5V
BP5233-33A IC201
V+3_3D
3.44V
Q201 2SA1037K
3.3 to 3.4V
DC - DC Converter 5V → 3.3V
Q1 DTC124EUA
Q2 DTC124EUA
Q5 2SA1162 (GR)
Q7 DTC124EUA
D14 1SS355
Relay Control (Mother +5VSB)
Q3 DTC124EUA
Q4 DTC124EUA
CN4
DKN1272-39-29-9206
MOTHER BOARD ASSY PWR
+3.3V
+3.3V
GND
+5V
GND
+5V
GND
PWR_OK
+5VSB
+12V
+3.3V
−12V
GND
PS_ON#
GND
GND
GND
−5V
+5V
+5V
V+5VSB_M
D19 SML-310DT
DC - DC Converter 12V → -31V
IC451 AN8015SH
FB IN− IN+ VREF VCC CT RT S.C.P. GND Out
Q451 2SA1036K
D453 RB400D
L451 DTH1192 (470uH)
V+12D2
−0.92V −0.59V
−0.6V −0.27V
−1.2V −0.37V
12.1V 7.9V
−13V −32.2V
−15.6V −32.8V
−14.8V −10.3V
−13.4V −7.3V −0.7V 5.6μs
TC74HC05AF-TBB (1/6)
TC74HC05AF-TBB (2/6)
TC74HC05AF (5/6)
TC74HC05AF (6/6)
TC74HC05AF-TBB (3/6)
TC74HC05AF-TBB (4/6)
Q6 DTC124EUA
Q8 DTC124EUA
RY1 BSR1014
TP6673
MOTHER BOARD ASSY JFP
RESET_P#
RESET_N
PWR_SW_P#
PWR_SW_N
HDD_LED_N#
HDD_LED_P
CN6 B6B-ZR-SM3
HDD_IND#
Q13 DTC124EUA
Q12 DTC124EUA
D22 1SS355-TRB
FAN DET.
Q9 2SA1162 (GR)
Q10 UMH1N
Q11 DTC124EUA
Q21 2SA1162 (GR)
Q17 UMH1N
FAN_DET1
FAN_CONT1
FAN_CONT2
FAN Control
Q14 2SA1162 (GR)
Q15 2SA1162 (GR)
IC4 ICP-N10
IC5 ICP-N10
Q18 2SD2114K (VW)
Q19 2SD2114K (VW)
CN9 KM200SA2
CN10 KM200SA2
TO FAN(for Rear)
TO FAN(for DRIVE1)

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N10, MFD BY ROHM CO., LTD. FOR IC4 AND IC5.

I PWRB(POLY) ASSY (DWZ1129)



V+2_5D
2.59V
R108 0 (1/10)
TP102
2.5 to 2.7V
CEAT C103 470/10
GNDD
DC - DC Converter
-28V → -24V
-24.4V 0V
FT175 FT177
FT218
-24.3V
-26.7V
0.1V
R302 0 (1/10)
L303
R303 0 (1/10)
VTL1157
CEAT CEAT
C305 47/35 C306 47/35
IC301
BA9743AFV
Vref SCP NON2 INV2 FB2 DT2 OUT2 VCC
CT RT NON1 INV1 FB1 DT1 OUT1 GND
Q301 2SA1900(Q)
Q302
C308 10/35
V−28D
0V
−1.2V
TP302
Current direction
-23.4V
L301
DTH1191 (220uH)
R317 0 (1/10)
V−24D
C311 CSZ 10/10
R319 51k (D)
R318 15k (D)
C312 100/10 C313 100/10 C314 100/10
D302
2 is N.
RB400D
TP301
TP303
-25.1V
-25.8V
-25.9V
-26V
-26.8V
-25.9V -25.5V
There is the case that FL disappears when touches it.
0.6V −26.2V
−1.8V −27.4V
DC - DC Converter
+12V → -28V
10.92V 10.46V
0.94V 0.45V
0.64V -0.32V
11.6V 10.5V
V+12D2 V+12D
R403 8.2k (D)
R408 0 (1/10)
R411 0 (1/10)
IC401
AN8015SH
FB IN− IN+ VREF VCC
CT RT S.C.P. GND Out
Q401 2SA1900(Q)
Q402 2SA1900(Q)
C403 10/35
C405 100/16
R409 120k (D)
R421 27k (D)
C404
11.5V
-21.7V
-26.8V
D403 RB400D
R420 0 (1/10)
-26.8V
V−28D
TP402
C410 33/35 (33uF)
L401 DTH1191 (220uH)
D402 RB400D
TP401 TP403
1.2V 0.5V
11.8V −28.2V
−10.8V −28V
1.18V −0.33V
11.5V 0.5V
R459 120k (D)
C454 CSZ 10/10
R464 47k (D)
-22.2V
D452 RB400D
-31.2V
-31.2V
R469 0 (1/10)
TP453
V−31D
C457 10/50 C458 10/50 (10uF)
VNF1084
KN1 KN2 KN3
R85 0 (1/10) R86 0 (1/10) R87 0 (1/10)
FT216 FT217
V+3_3V V+3_3D
CN2
B14B-PH-K-S
1 GND
2 GND
3 +2.5V
4 +2.5V
5 GND
6 GND
7 +3.3V
8 +3.3V
9 GND
10 +5V
11 GND
12 −12V
13 +12V
14 GND
TP18 TP9 TP19 TP11 TP26 TP25 TP27 TP33 TP35 TP34 TP41 TP39 TP42 TP40
C38 C39 C41 C40 C42 0.01
V+5D V+12V V−12V V+12D
H 1/6 CN3201
V+5V V+5VSB
R82 1.5k R81 1.5k
FT219 FT220
D11 SML-310DT D10 SML-310DT
V+3_3D V+2_5D
R83 1k R84 820
FT221 FT222
D12 SML-310DT D13 SML-310DT
CN3
AKM1149-
2.3A
IC8 ICP-S2.3-T
R66 22
C16 0.01
TP96
R90 R89 R88 R63 10k
1 GND
2 GND
3 +5VSB
4 FAN_DET
5 GND
6 FAN_CONT1
7 RESET#
8 FAN_CONT2
9 PWR_OK
10 FAN_CONT3
11 GND
12 PS_ON_I#
13 FLDC (+)
14 PS_ON_O#
15 FLDC (−)
16 PWR_SW#
17 VFD_PWR
18 HDD_IND#
19 PWR_SW2
20 GND
J CN501
FAN_CONT1 RESET# FAN_CONT2 PWR_OK FAN_CONT3 PS_ON_I# PS_ON_O# PWR_SW# HDD_IND# PWR_SW2
Q28 2SA1162 (GR)
Q27 UMH1N
Q29 DTC124EUA
Q22 DTC124EUA
R37 10k
R36 47k
C23 10/35
R46 0
FAN_DET2 FAN_DET3
Q30 UMH1N
R49 1.5k R48 1.5k
D25 SML-310YT D24 SML-310YT
R62 1.5k
D9 SML-310DT
Q24 DTA124EUA
HDD_IND# PS_ON_I#
UCOM_CONT
FAN_DET1 FAN_DET2 FAN_DET3
D6 D7 D8 1SS355
TP10
C24 0.01
V−28D −27V
V−24D −23.5V
V−31D −30.5V
FAN_CONT3
R60 10k
Q16 2SA1162 (GR)
D3 1SS355
5.2V 4.5V
R76 4.7k R75 4.7k
11.3V
IC6 ICP-N10
Q20 2SD2114K (VW)
-12V V−12V
-11.9V
11.7V
R77 27 (1/10) R78 27 (1/10)
1/10W
TP14 TP17 TP93 TP94
C37 470/35 CEAT
C36 0.01
10.7V
CN11 KM200SA2
TO FAN(for DRIVE2)

	D10 (ORG)	D11 (ORG)	D12 (ORG)	D13 (ORG)
STB	ON	OFF	OFF	OFF
ON	ON	ON	ON	OFF

	D25 (YEL)	D19 (ORG)	D24 (YEL)	D9 (ORG)
STB	ON	OFF	ON	OFF
ON	OFF	ON	*1	*2

*1 : OFF at FAN is abnormal

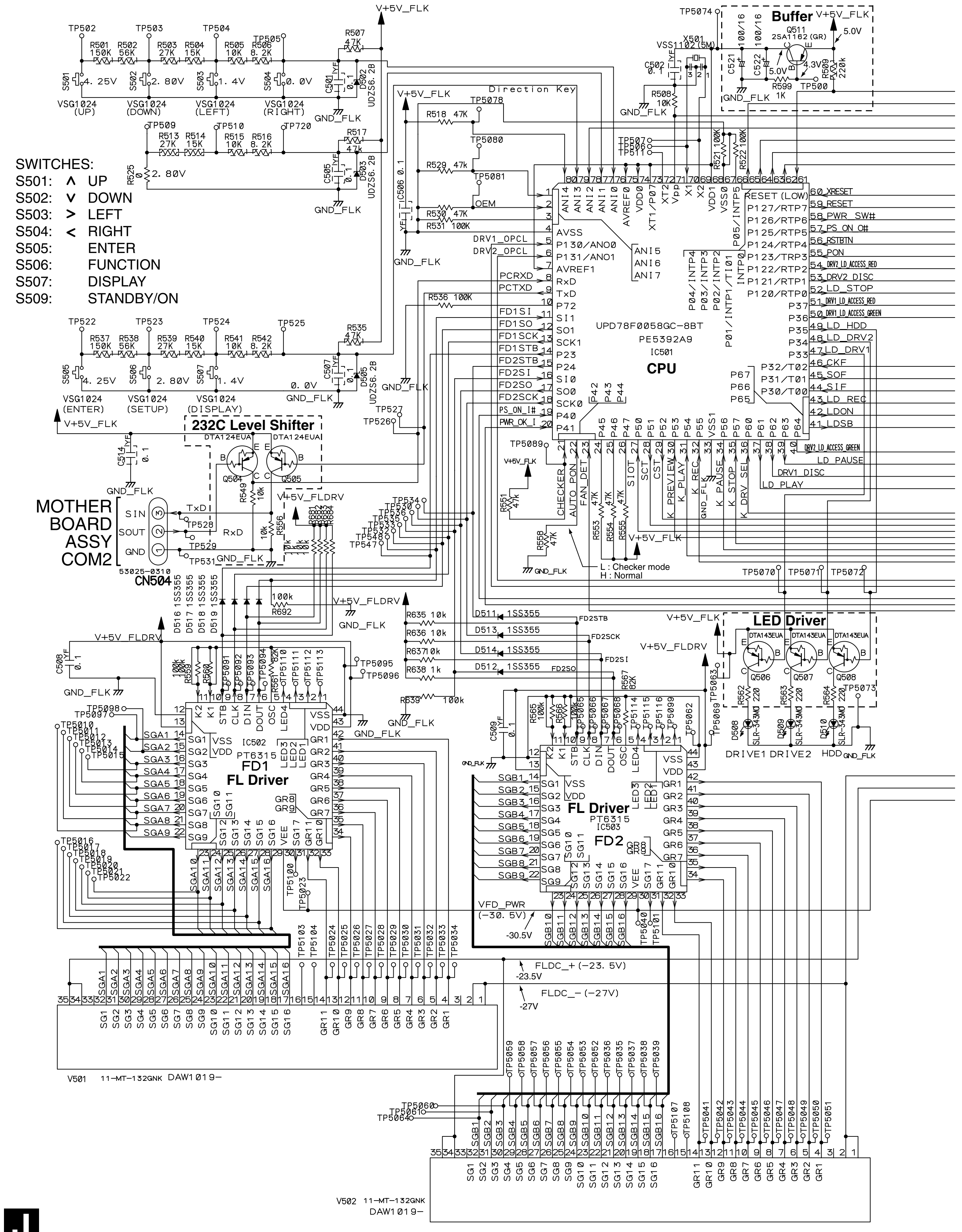
*2 : ON at access to HDD

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N10, MFD BY ROHM CO., LTD. FOR IC6.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-S2.3, MFD BY ROHM CO., LTD. FOR IC8.

▭ : The power supply is shown with the marked box.

3.21 FLKB(WYV/RB) ASSY

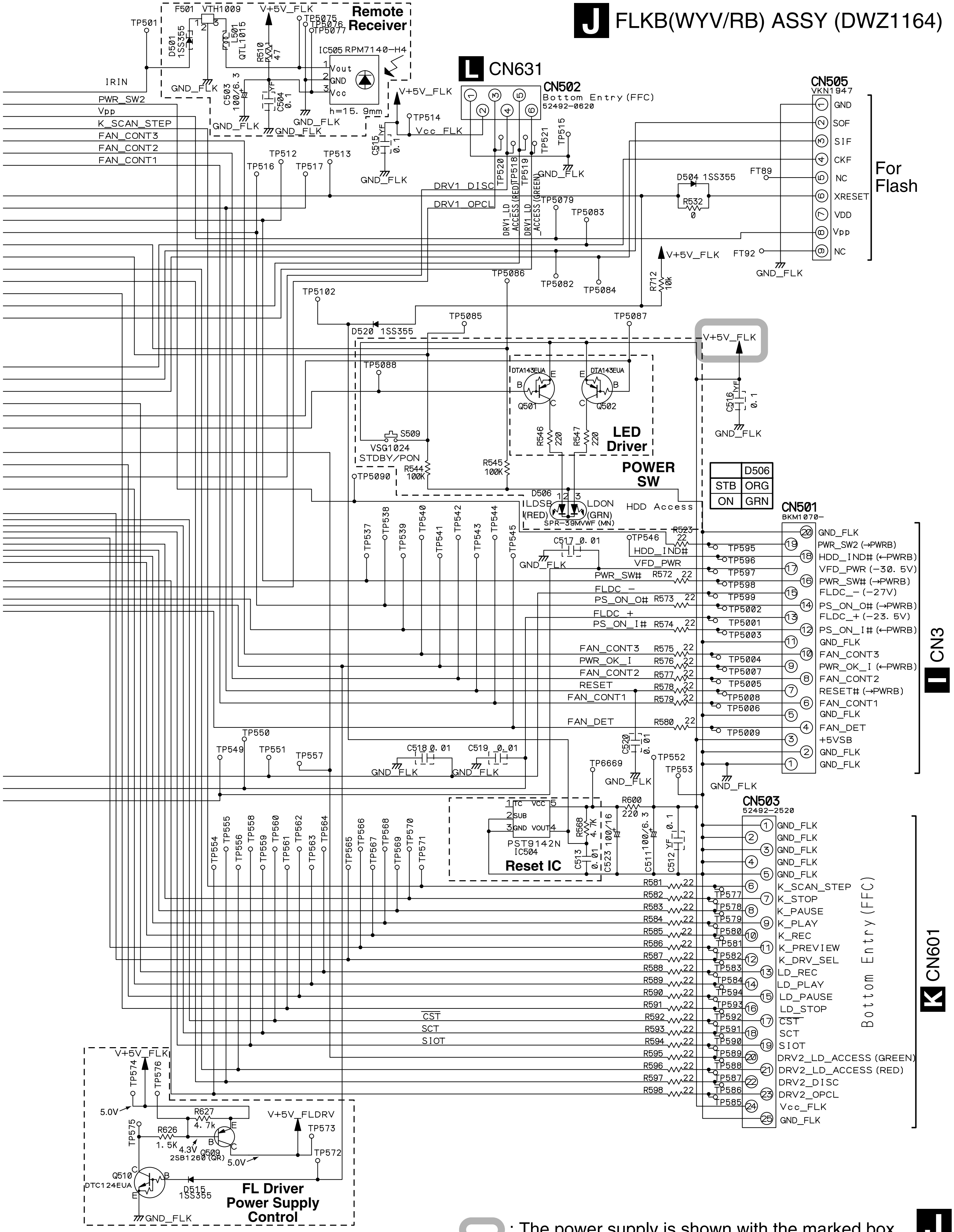


SWITCHES:

S501:	∧	UP
S502:	∨	DOWN
S503:	>	LEFT
S504:	<	RIGHT
S505:		ENTER
S506:		FUNCTION
S507:		DISPLAY
S509:		STANDBY/ON

A
B
C
D
E
F
V+5V_FLK
Buffer
Q511
2SA1162 (GR)
5.0V
4.3V
TP5074
X501
VSS1102(5M)
Direction Key
TP502
TP503
TP504
TP505
R501 150K
R502 56K
R503 27K
R504 15K
R505 10K
R506 8.2K
R507 47K
S501 4.25V
S502 2.80V
S503 1.4V
S504 0.0V
VSG1024 (UP)
VSG1024 (DOWN)
VSG1024 (LEFT)
VSG1024 (RIGHT)
D502 UDZS6.2B
D503 UDZS6.2B
GND_FLK
R525 0
2.80V
TP509
TP510
TP720
R513 27K
R514 15K
R515 10K
R516 8.2K
R517 47K
R518 47K
R529 47K
R530 47K
R531 100K
R536 100K
TP5078
TP5080
TP5081
OEM
DRV1_OPCL
DRV2_OPCL
PCRXD
PCTXD
FD1SI
FD1SO
FD1SCK
FD1STB
FD2STB
FD2SI
FD2SO
FD2SCK
PS_ON_I#
PWR_OK_I
UPD78F0058GC-8BT
PE5392A9
IC501
CPU
RESET (LOW)
60 XRESET
59 RESET
58 PWR_SW#
57 PS_ON_O#
56 RSTBTN
55 PON
54 DRV2 LD ACCESS RED
53 DRV2 DISC
52 LD STOP
51 DRV1 LD ACCESS RED
50 DRV1 LD ACCESS GREEN
49 LD HDD
48 LD DRV2
47 LD DRV1
46 CKF
45 SOF
44 SIF
43 LD REC
42 LDON
41 LDSB
DRV2 LD ACCESS GREEN
LD PAUSE
DRV1 DISC
LD PLAY
CHECKER
AUTO PON
FAN DET
SIOT
SCT
CST
K PREVIEW
K PLAY
K REC
K PAUSE
K STOP
K DRV SEL
L : Checker mode
H : Normal
TP5070
TP5071
TP5072
TP522
TP523
TP524
TP525
R537 150K
R538 56K
R539 27K
R540 15K
R541 10K
R542 8.2K
R535 47K
S505 4.25V
S506 2.80V
S507 1.4V
0.0V
D505 UDZS6.2B
VSG1024 (ENTER)
VSG1024 (SETUP)
VSG1024 (DISPLAY)
232C Level Shifter
DTA124EUA
Q504
Q505
R549 10k
R556 10k
V+5V_FLDRV
MOTHER BOARD ASSY COM2
SIN
SOUT
GND
TxD
RxD
TP528
TP529
TP531
53025-0310
CN504
D516 1SS355
D517 1SS355
D518 1SS355
D519 1SS355
R692 100k
D511 1SS355
D513 1SS355
D514 1SS355
D512 1SS355
R635 10k
R636 10k
R637 10k
R638 1k
R639 100k
LED Driver
DTA143EUA
Q506
Q507
Q508
D508 SLR-343MG
D509 SLR-343MG
D510 SLR-343MG
DRIVE1
DRIVE2
HDD
IC502
PT6315
FD1
FL Driver
IC503
PT6315
FD2
FL Driver
VFD_PWR (-30.5V)
-30.5V
FLDC_+ (-23.5V)
-23.5V
FLDC_- (-27V)
-27V
V501 11-MT-132GNK DAW1019-
V502 11-MT-132GNK DAW1019-

J FLKB(WYV/RB) ASSY (DWZ1164)

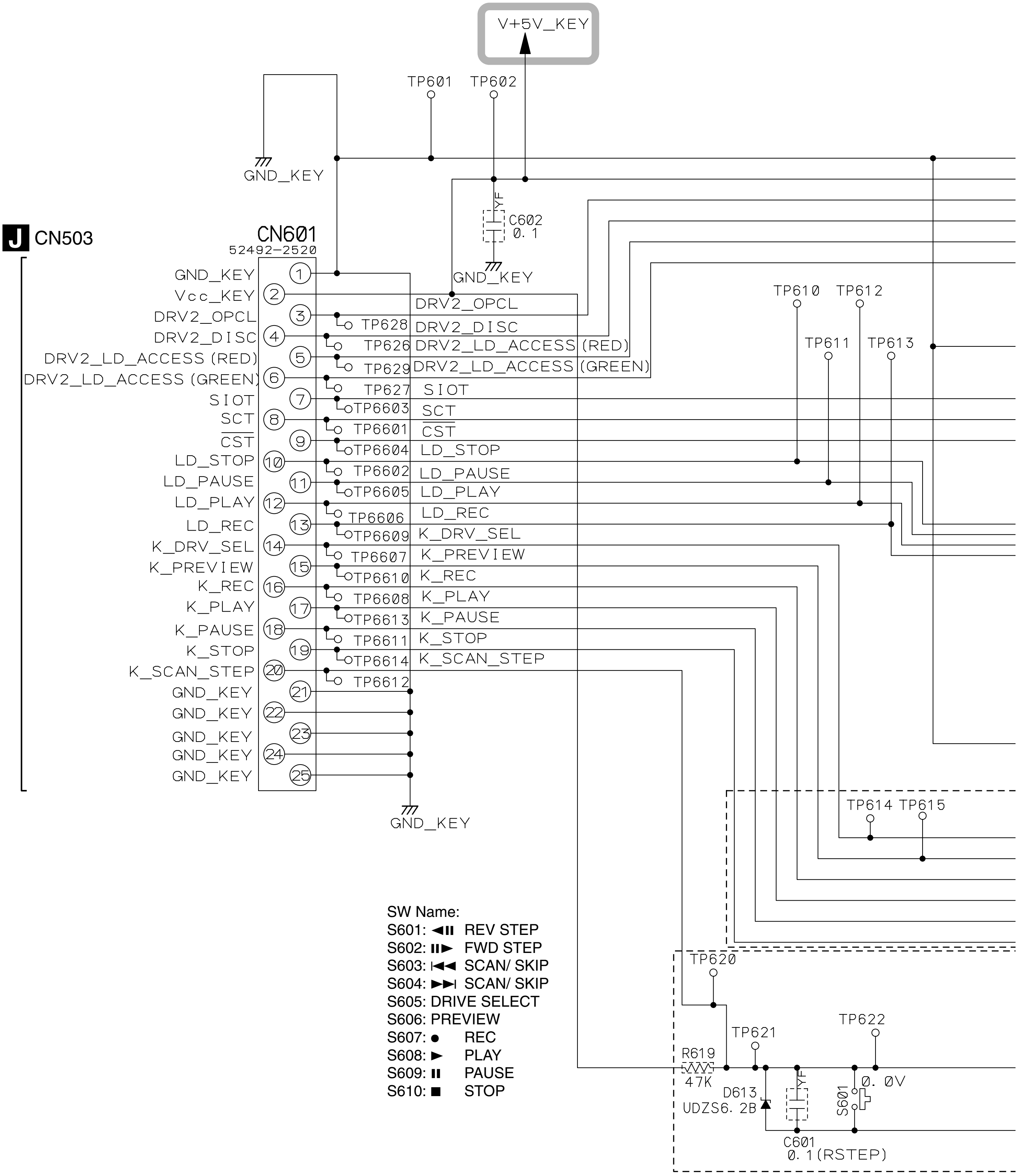

Remote Receiver
F501 VTH1009
V+5V_FLK
TP501
D501 1SS355
L501 QTL1015
R510 47
IC505 RPM7140-H4
Vout
GND
Vcc
h=15. 9mm
C503 100/6. 3
C504 0. 1
GND_FLK
IRIN
PWR_SW2
Vpp
K_SCAN_STEP
FAN_CONT3
FAN_CONT2
FAN_CONT1
L CN631
CN502
Bottom Entry (FFC)
52492-0620
TP514
Vcc_FLK
C515 0. 1
TP515
TP521
TP520
TP518
TP519
DRV1_LD_ACCESS(RED)
DRV1_LD_ACCESS(GREEN)
DRV1_DISC
DRV1_OPCL
TP512
TP513
TP516
TP517
TP5079
TP5083
TP5082
TP5084
TP5086
TP5102
D520 1SS355
TP5085
TP5087
R712 10k
D504 1SS355
R532 0
FT89
FT92
CN505
VKN1947
GND
SOF
SIF
CKF
NC
XRESET
VDD
Vpp
NC
For Flash
TP5088
DTA143EUA
Q501
Q502
R546 220
R547 220
LED Driver
S509
VSG1024
STDBY/PON
R544 100K
R545 100K
POWER SW
TP5090
D506
LDSB (RED)
LDON (GRN)
SPR-39MVWF (MN)
HDD Access
TP537
TP538
TP539
TP540
TP541
TP542
TP543
TP544
TP545
C517 0. 01
TP546
R523 22
HDD_IND#
VFD_PWR
PWR_SW#
FLDC -
PS_ON_O#
FLDC +
PS_ON_I#
R572 22
R573 22
R574 22
FAN_CONT3
PWR_OK_I
FAN_CONT2
RESET
FAN_CONT1
FAN_DET
R575 22
R576 22
R577 22
R578 22
R579 22
R580 22
C520 0. 01
TP595
TP596
TP597
TP598
TP599
TP5002
TP5001
TP5003
TP5004
TP5007
TP5005
TP5008
TP5006
TP5009
CN501
BKM1070-
GND_FLK
PWR_SW2 (→PWRB)
HDD_IND# (←PWRB)
VFD_PWR (-30. 5V)
PWR_SW# (→PWRB)
FLDC_- (-27V)
PS_ON_O# (→PWRB)
FLDC_+ (-23. 5V)
PS_ON_I# (←PWRB)
GND_FLK
FAN_CONT3
PWR_OK_I (←PWRB)
FAN_CONT2
RESET# (→PWRB)
FAN_CONT1
GND_FLK
FAN_DET
+5VSB
GND_FLK
GND_FLK
I CN3
TP550
TP549
TP551
TP557
C518 0. 01
C519 0. 01
TP552
TP553
TP6669
R600 220
Reset IC
PST9142N
IC504
C513 0. 01
R568 4.7K
C523 100/16
C511 100/6. 3
C512 0. 1
TP554
TP555
TP556
TP558
TP559
TP560
TP561
TP562
TP563
TP564
TP565
TP566
TP567
TP568
TP569
TP570
TP571
CST
SCT
SIOT
R581 22
R582 22
R583 22
R584 22
R585 22
R586 22
R587 22
R588 22
R589 22
R590 22
R591 22
R592 22
R593 22
R594 22
R595 22
R596 22
R597 22
R598 22
CN503
52492-2520
GND_FLK
K_SCAN_STEP
K_STOP
K_PAUSE
K_PLAY
K_REC
K_PREVIEW
K_DRV_SEL
LD_REC
LD_PLAY
LD_PAUSE
LD_STOP
CST
SCT
SIOT
DRV2_LD_ACCESS (GREEN)
DRV2_LD_ACCESS (RED)
DRV2_DISC
DRV2_OPCL
Vcc_FLK
GND_FLK
Bottom Entry (FFC)
K CN601
TP577
TP578
TP579
TP580
TP581
TP582
TP583
TP584
TP594
TP593
TP592
TP591
TP590
TP589
TP588
TP587
TP586
TP585
V+5V_FLK
TP574
TP576
5.0V
R627 4. 7k
R626 1. 5K
4.3V
Q509 2SB1260 (QR)
V+5V_FLDRV
TP573
TP572
TP575
Q510 DTC124EUA
D515 1SS355
FL Driver Power Supply Control
GND_FLK

	D506
STB	ORG
ON	GRN

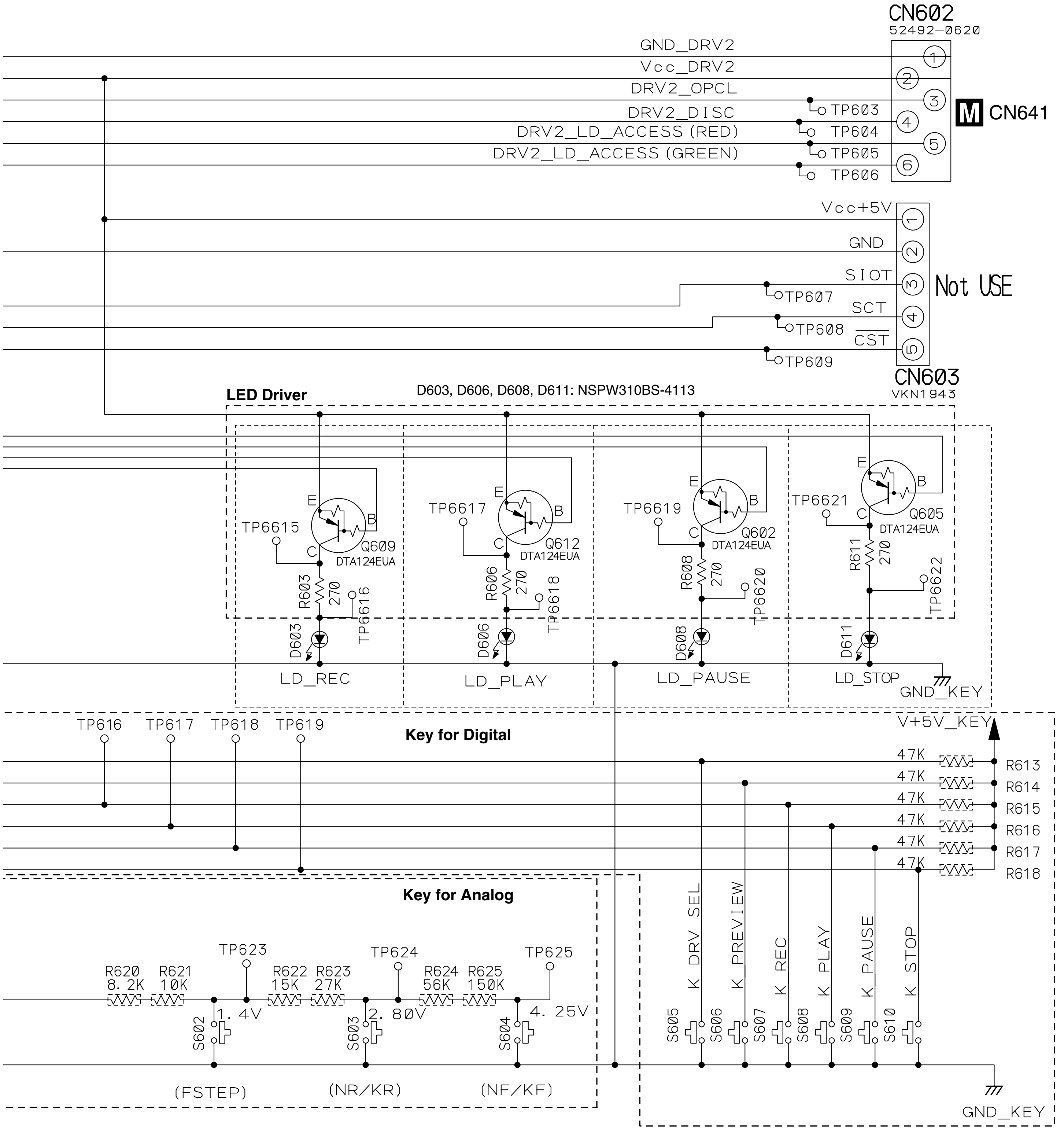
: The power supply is shown with the marked box.

3.22 KEYB(WYV/RB) ASSY

K KEYB(WYV/RB) ASSY (DWZ1157)


V+5V_KEY
TP601
TP602
GND_KEY
C602
0.1
YF
J CN503
CN601
52492-2520
GND_KEY
Vcc_KEY
DRV2_OPCL
DRV2_DISC
DRV2_LD_ACCESS (RED)
DRV2_LD_ACCESS (GREEN)
SIOT
SCT
CST
LD_STOP
LD_PAUSE
LD_PLAY
LD_REC
K_DRV_SEL
K_PREVIEW
K_REC
K_PLAY
K_PAUSE
K_STOP
K_SCAN_STEP
GND_KEY
GND_KEY
GND_KEY
GND_KEY
GND_KEY
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
㉕
TP628
TP626
TP629
TP627
TP6603
TP6601
TP6604
TP6602
TP6605
TP6606
TP6609
TP6607
TP6610
TP6608
TP6613
TP6611
TP6614
TP6612
DRV2_OPCL
DRV2_DISC
DRV2_LD_ACCESS (RED)
DRV2_LD_ACCESS (GREEN)
SIOT
SCT
CST
LD_STOP
LD_PAUSE
LD_PLAY
LD_REC
K_DRV_SEL
K_PREVIEW
K_REC
K_PLAY
K_PAUSE
K_STOP
K_SCAN_STEP
GND_KEY
TP610
TP612
TP611
TP613
TP614
TP615
TP620
TP621
TP622
R619
47K
D613
UDZS6.2B
YF
C601
0.1(RSTEP)
S601
0.0V

SW Name:
S601: ◄II REV STEP
S602: II► FWD STEP
S603: I◄◄ SCAN/ SKIP
S604: ►►I SCAN/ SKIP
S605: DRIVE SELECT
S606: PREVIEW
S607: ● REC
S608: ► PLAY
S609: II PAUSE
S610: ■ STOP


CN602
52492-0620
GND_DRV2
Vcc_DRV2
DRV2_OPCL
DRV2_DISC
DRV2_LD_ACCESS (RED)
DRV2_LD_ACCESS (GREEN)
TP603
TP604
TP605
TP606
① ② ③ ④ ⑤ ⑥
M CN641
Vcc+5V
GND
SIOT
SCT
CST
TP607
TP608
TP609
Not USE
CN603
VKN1943
LED Driver
D603, D606, D608, D611: NSPW310BS-4113
TP6615
TP6616
TP6617
TP6618
TP6619
TP6620
TP6621
TP6622
Q609
Q612
Q602
Q605
DTA124EUA
E
B
C
R603 270
R606 270
R608 270
R611 270
D603
D606
D608
D611
LD_REC
LD_PLAY
LD_PAUSE
LD_STOP
GND_KEY
Key for Digital
TP616
TP617
TP618
TP619
V+5V_KEY
47K
R613
R614
R615
R616
R617
R618
K DRV SEL
K PREVIEW
K REC
K PLAY
K PAUSE
K STOP
S605
S606
S607
S608
S609
S610
Key for Analog
TP623
TP624
TP625
R620 8.2K
R621 10K
R622 15K
R623 27K
R624 56K
R625 150K
1.4V
2.80V
4.25V
S602
S603
S604
(FSTEP)
(NR/KR)
(NF/KF)
GND_KEY

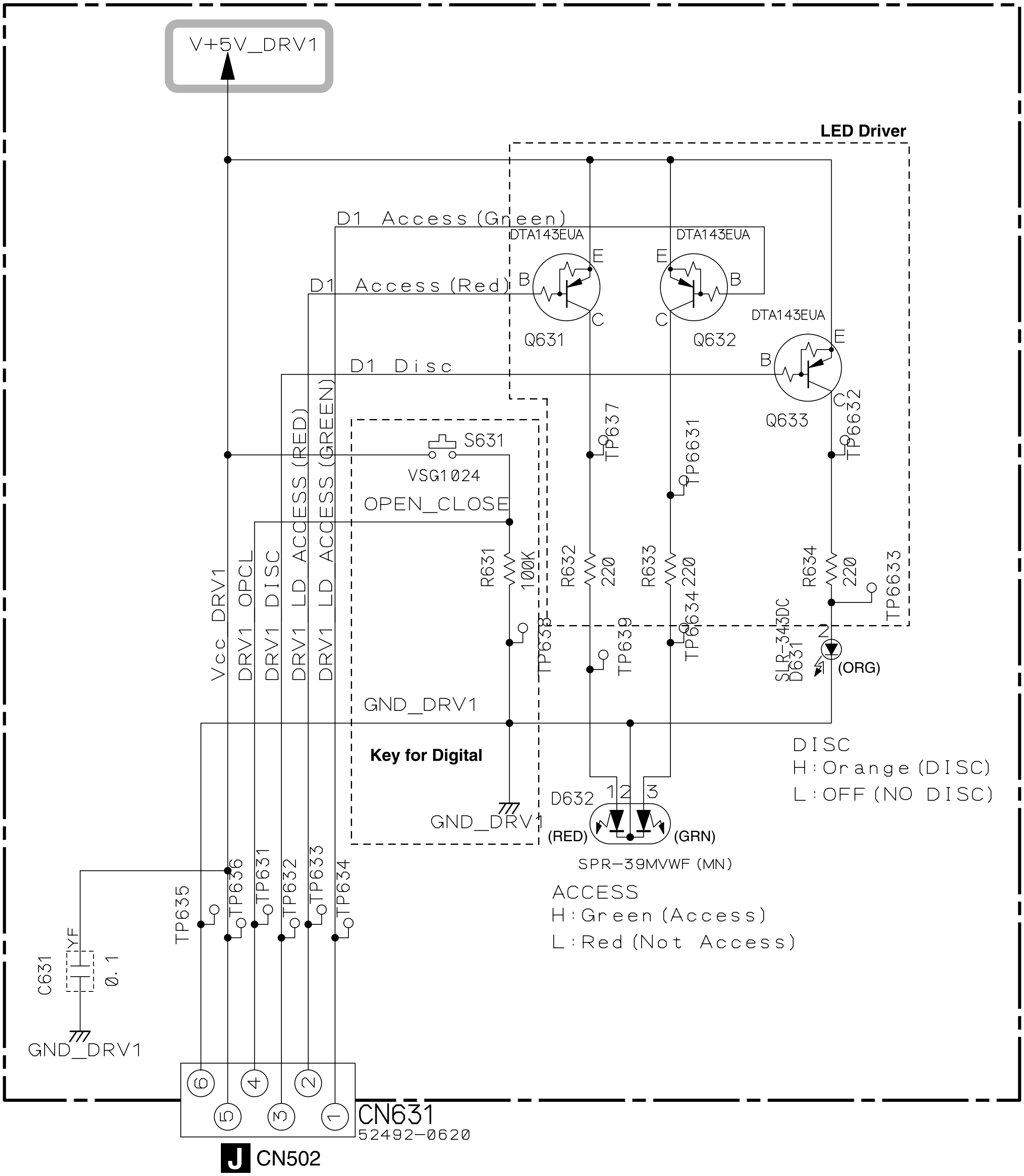
S601-S610: VSG1024

▭ : The power supply is shown with the marked box.

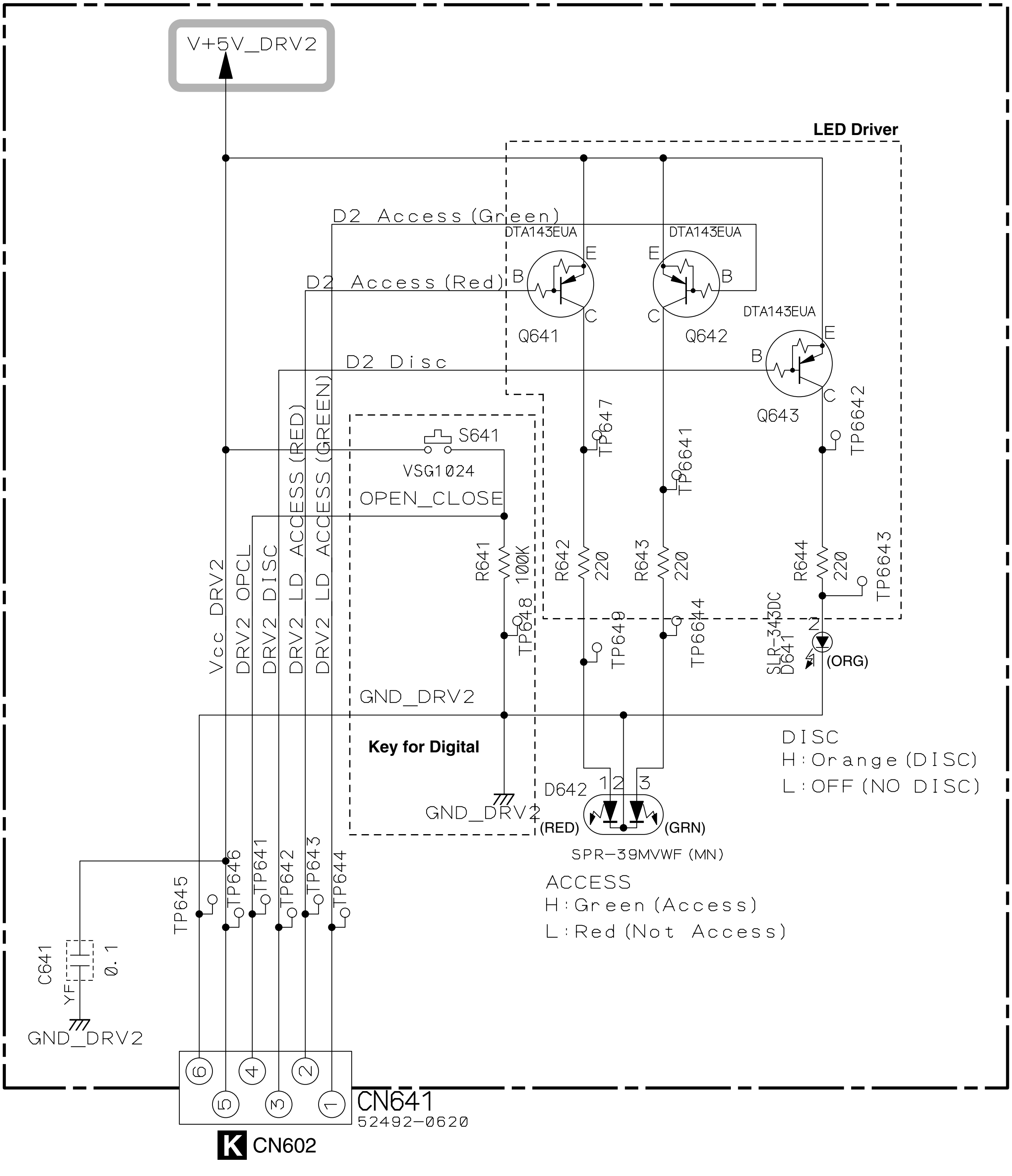
K

3.23 DRV1B and DRV2B ASSYS

L DRV1B ASSY (DWZ1160)


V+5V_DRV1
LED Driver
D1 Access (Green)
D1 Access (Red)
D1 Disc
DTA143EUA
DTA143EUA
DTA143EUA
E
B
C
Q631
Q632
Q633
TP637
TP6631
TP6632
TP6633
S631
VSG1024
OPEN_CLOSE
R631 100K
R632 220
R633 220
R634 220
TP638
TP639
TP634
SLR-343DC
D631
(ORG)
Vcc DRV1
DRV1 OPCL
DRV1 DISC
DRV1 LD ACCESS (RED)
DRV1 LD ACCESS (GREEN)
GND_DRV1
Key for Digital
GND_DRV1
D632
1 2 3
(RED)
(GRN)
SPR-39MVWF (MN)
DISC
H : Orange (DISC)
L : OFF (NO DISC)
ACCESS
H : Green (Access)
L : Red (Not Access)
TP635
TP636
TP631
TP632
TP633
TP634
C631
YF
0.1
GND_DRV1
6 4 2
5 3 1
CN631
52492-0620
J CN502

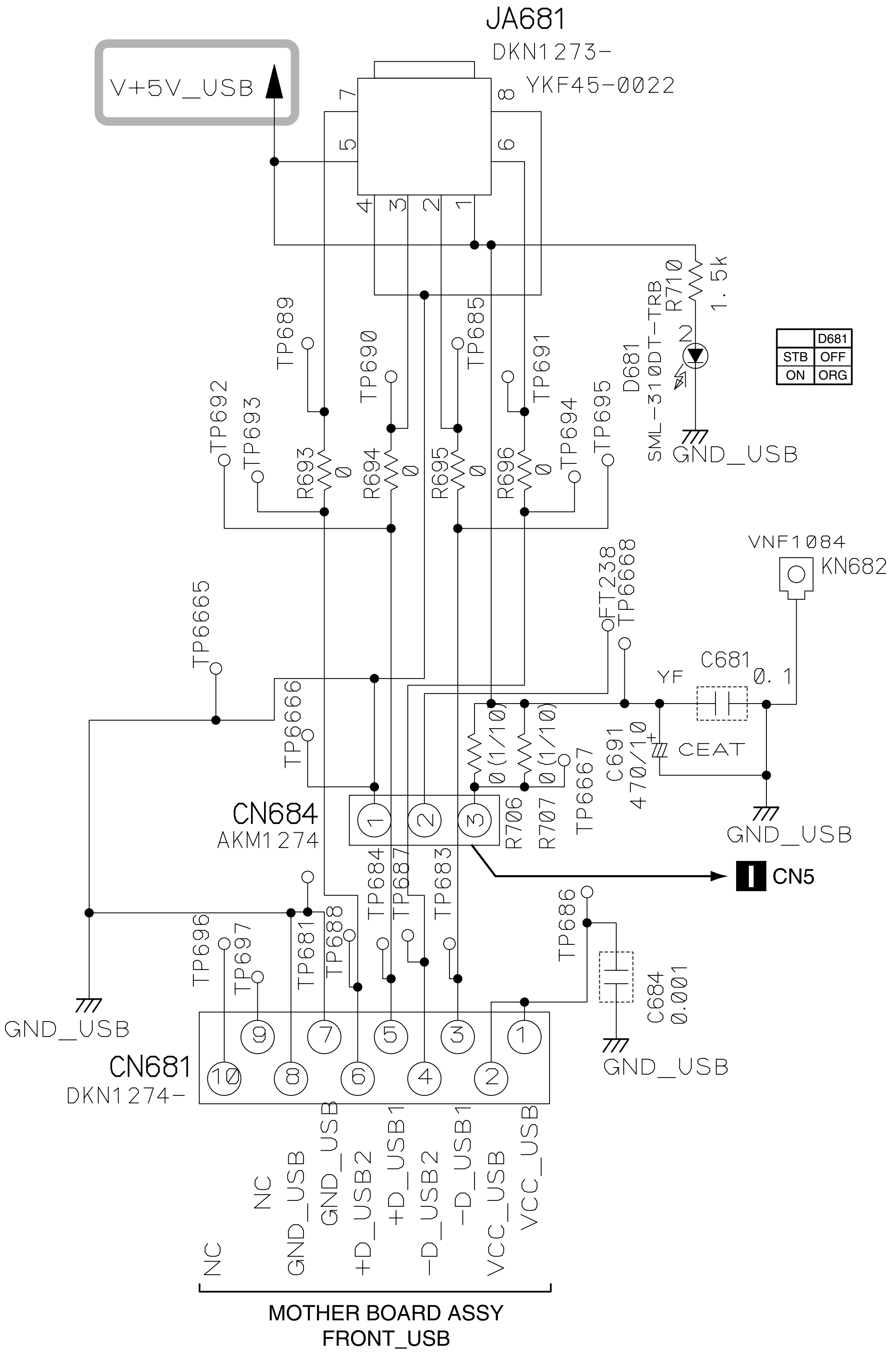
M DRV2B ASSY (DWZ1161)


V+5V_DRV2
LED Driver
D2 Access (Green)
D2 Access (Red)
D2 Disc
DTA143EUA
DTA143EUA
DTA143EUA
B
E
C
Q641
E
B
C
Q642
E
B
C
Q643
TP647
TP6641
TP6642
S641
VSG1024
OPEN_CLOSE
R641
100K
R642
220
R643
220
R644
220
TP6643
TP648
TP649
TP6644
SLR-343DC
D641
(ORG)
Vcc DRV2
DRV2 OPCL
DRV2 DISC
DRV2 LD ACCESS (RED)
DRV2 LD ACCESS (GREEN)
GND_DRV2
Key for Digital
GND_DRV2
D642
1 2 3
(RED)
(GRN)
SPR-39MVWF (MN)
DISC
H : Orange (DISC)
L : OFF (NO DISC)
ACCESS
H : Green (Access)
L : Red (Not Access)
TP645
TP646
TP641
TP642
TP643
TP644
C641
YF
0.1
GND_DRV2
6
4
2
5
3
1
CN641
52492-0620
K CN602

: The power supply is shown with the marked box. M

3.24 USBB ASSY

N USBB ASSY (DWZ1159)


JA681
DKN1273-
YKF45-0022
V+5V_USB
1
2
3
4
5
6
7
8
R710
1.5k
D681
SML-310DT-TRB
GND_USB
TP689
TP690
TP685
TP691
TP692
TP693
TP694
TP695
R693
0
R694
0
R695
0
R696
0
VNF1084
KN682
FT238
TP6668
TP6665
TP6666
C681
0.1
YF
C691
470/10
CEAT
R706
0(1/10)
R707
0(1/10)
TP6667
GND_USB
CN684
AKM1274
1
2
3
I CN5
TP684
TP687
TP683
TP686
C684
0.001
TP696
TP697
TP681
TP688
GND_USB
CN681
DKN1274-
1
2
3
4
5
6
7
8
9
10
GND_USB
NC
NC
GND_USB
GND_USB
+D_USB2
+D_USB1
-D_USB2
-D_USB1
VCC_USB
VCC_USB
MOTHER BOARD ASSY
FRONT_USB

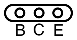
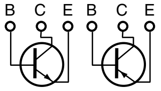
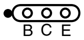
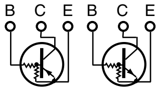
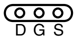
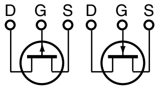
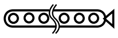
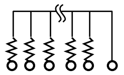
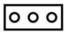
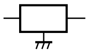
	D681
STB	OFF
ON	ORG

▭ : The power supply is shown with the marked box.

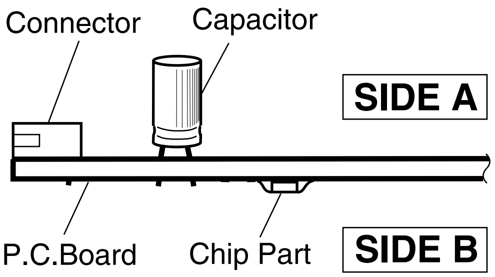
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

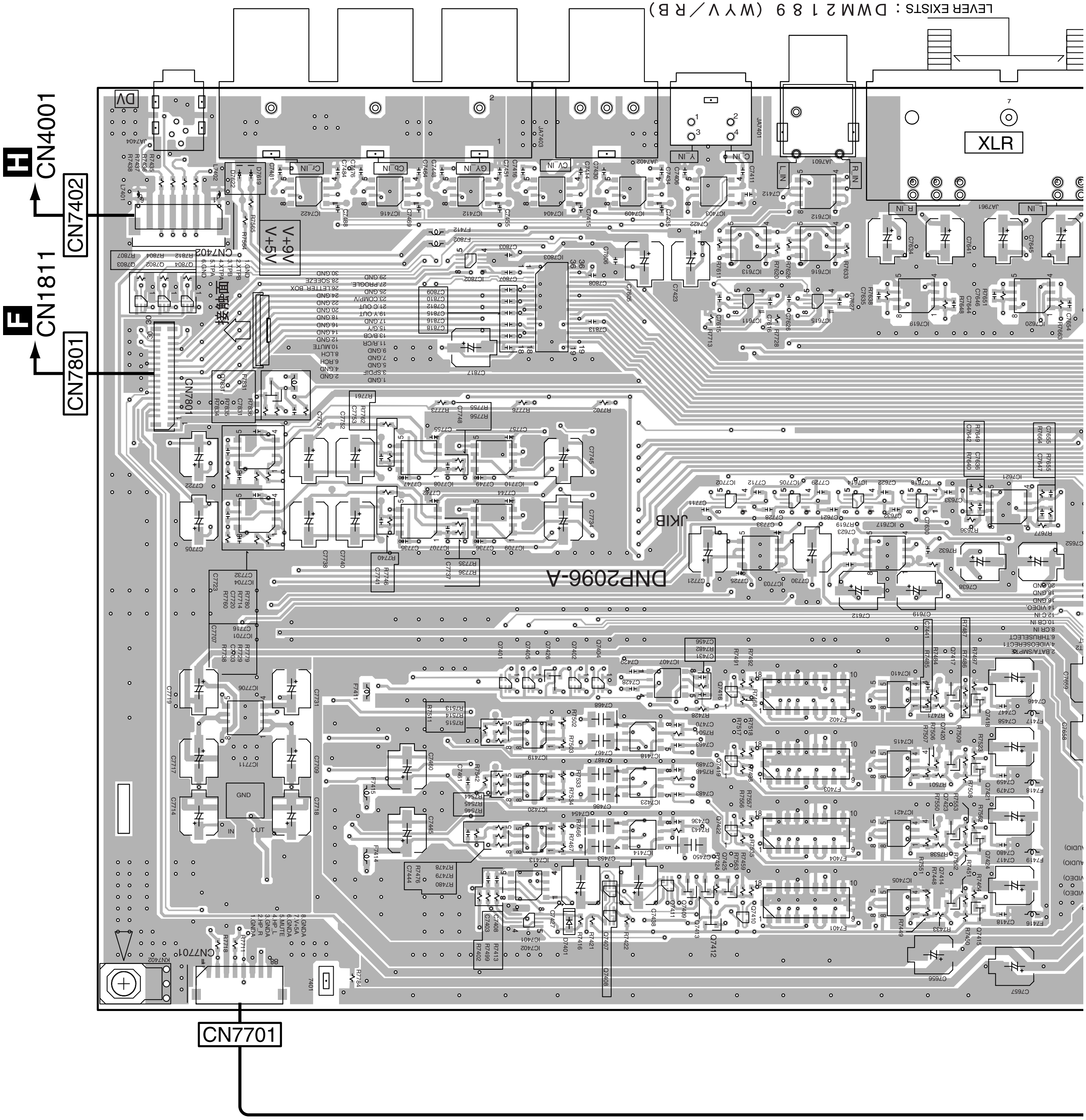
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.


Connector
Capacitor
SIDE A
P.C.Board
Chip Part
SIDE B

4.1 JKIB, JKDB, 422IB and HPVB ASSYS

SIDE A

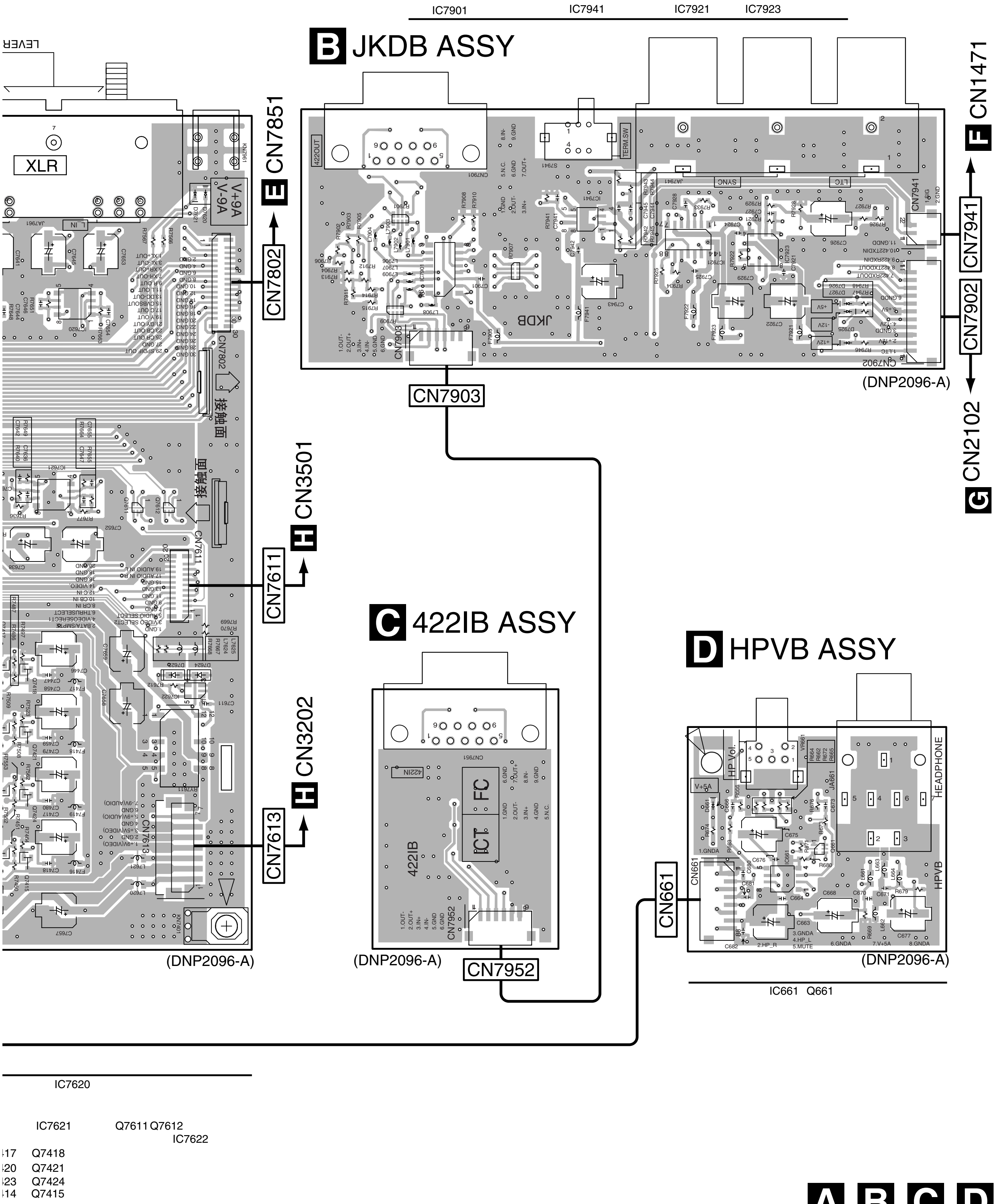
A JKIB ASSY


LEVER EXISTS : DWM2189 (WYV/RB)
H
CN4001
CN7402
F
CN1811
CN7801
DV
XLR
Cr IN
Cb IN
GY IN
CV IN
Y IN
C IN
L IN
R IN
V+9V
V+5V
JKIB
DNP2096-A
GND
IN
OUT
CN7701

Q7802-Q7804 IC7422 IC7416 IC7412 IC7404 IC7409 IC7403 IC7612 IC7619 IC7620
Q7831 IC7802 IC7803 IC7613 IC7616
IC7704 IC7708 IC7710 IC7611 IC7615
IC7701 IC7707 IC7709 Q7426 IC7702 IC7705 IC7616 IC7618 IC7621 C
IC7711 Q7401 Q7405 Q7402 Q7404 IC7407 IC7703 IC7617
IC7419 IC7418 Q7416 IC7410 Q7417 Q7418
IC7420 IC7423 Q7419 IC7415 Q7420 Q7421
IC7413 IC7414 Q7422 IC7421 Q7423 Q7424
IC7401 Q7407 Q7425 IC7405 Q7414 Q7415
IC7402 Q7408 Q7409-Q7412

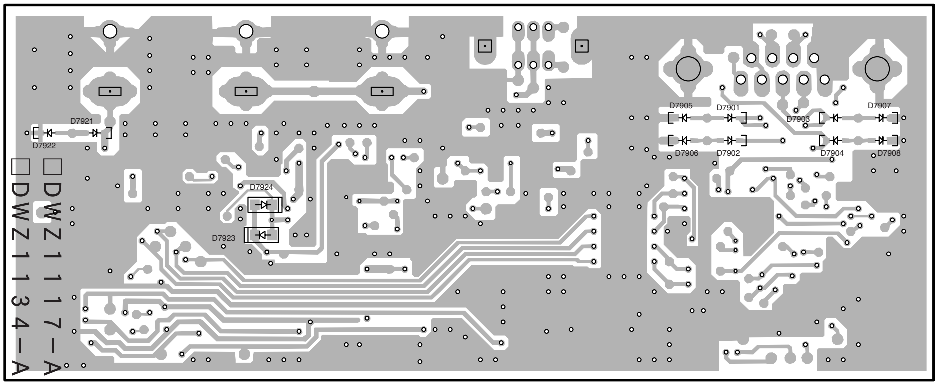
A

SIDE A


B JKDB ASSY
IC7901
IC7941
IC7921
IC7923
CN7903
CN7941
CN7902
F CN1471
G CN2102
JKDB
422OUT
TERM.SW
SYNC
LTC
(DNP2096-A)
C 422IB ASSY
422IB
422IN
FC
ICT
CN7952
(DNP2096-A)
D HPVB ASSY
HPVB
HP Vol.
HEADPHONE
V+5A
CN661
IC661 Q661
(DNP2096-A)
LEVER
XLR
V+9A
V-9A
E CN7851
CN7802
H CN3501
CN7611
H CN3202
CN7613
接触面
(DNP2096-A)
IC7620
IC7621
Q7611 Q7612
IC7622
Q7418
Q7421
Q7424
Q7415

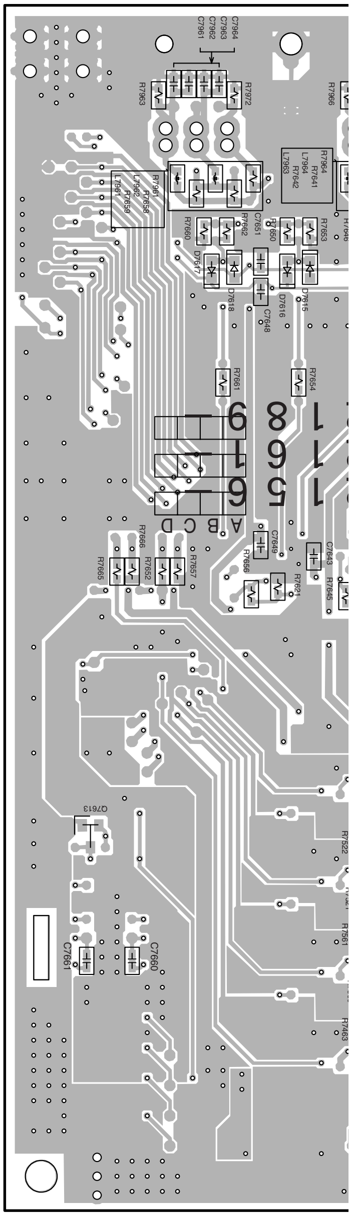
SIDE B

B JKDB ASSY


D7921
D7922
D7924
D7923
D7905
D7901
D7903
D7907
D7906
D7902
D7904
D7908
□DWZ1117-A
□DWZ1134-A

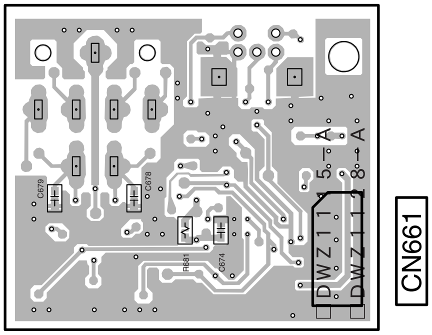
(DNP2096-A)

A JKIB ASSY


C7961
C7962
C7963
C7964
R7963
R7972
R7966
R7961
R7658
L7962
R7659
L7961
R7964
R7641
L7964
R7642
L7963
R7660
R7662
C7651
R7650
R7653
R7646
D7617
D7618
C7648
D7616
D7615
R7661
R7654
A B C D
R7666
R7665
R7652
R7657
C7649
R7656
C7643
R7621
R7645
Q7613
R7522
R7561
R7463
C7661
C7660

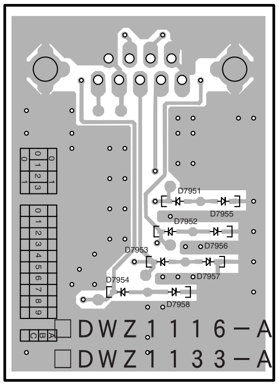
Q7613

D HPVB ASSY


C679
C678
R681
C674
DWZ1115-A
DWZ1118-A
CN661

(DNP2096-A)

C 422IB ASSY

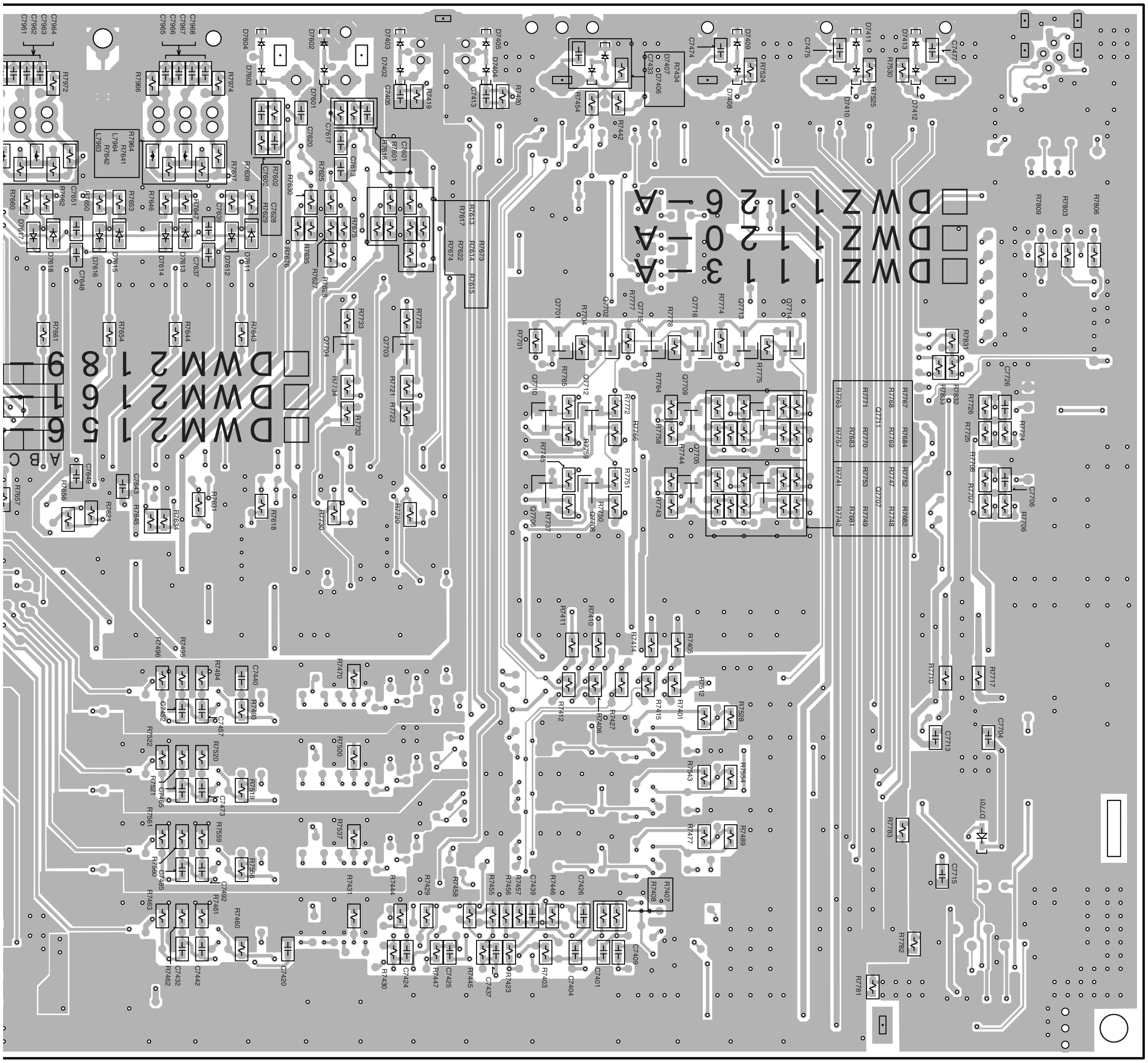

D7951
D7955
D7952
D7956
D7953
D7957
D7954
D7958
□DWZ1116-A
□DWZ1133-A

(DNP2096-A)

A B C D

SIDE B

ASSY


DWZ1126-A
DWZ1120-A
DWZ1113-A
DWM2189
DWM2161
DWM2156
A
B
C

(DNP2096-A)

Q7704 Q7703 Q7701 Q7702 Q7715 Q7716 Q7713 Q7714
Q7710 Q7712 Q7709 Q7711
Q7706 Q7708 Q7705 Q7707

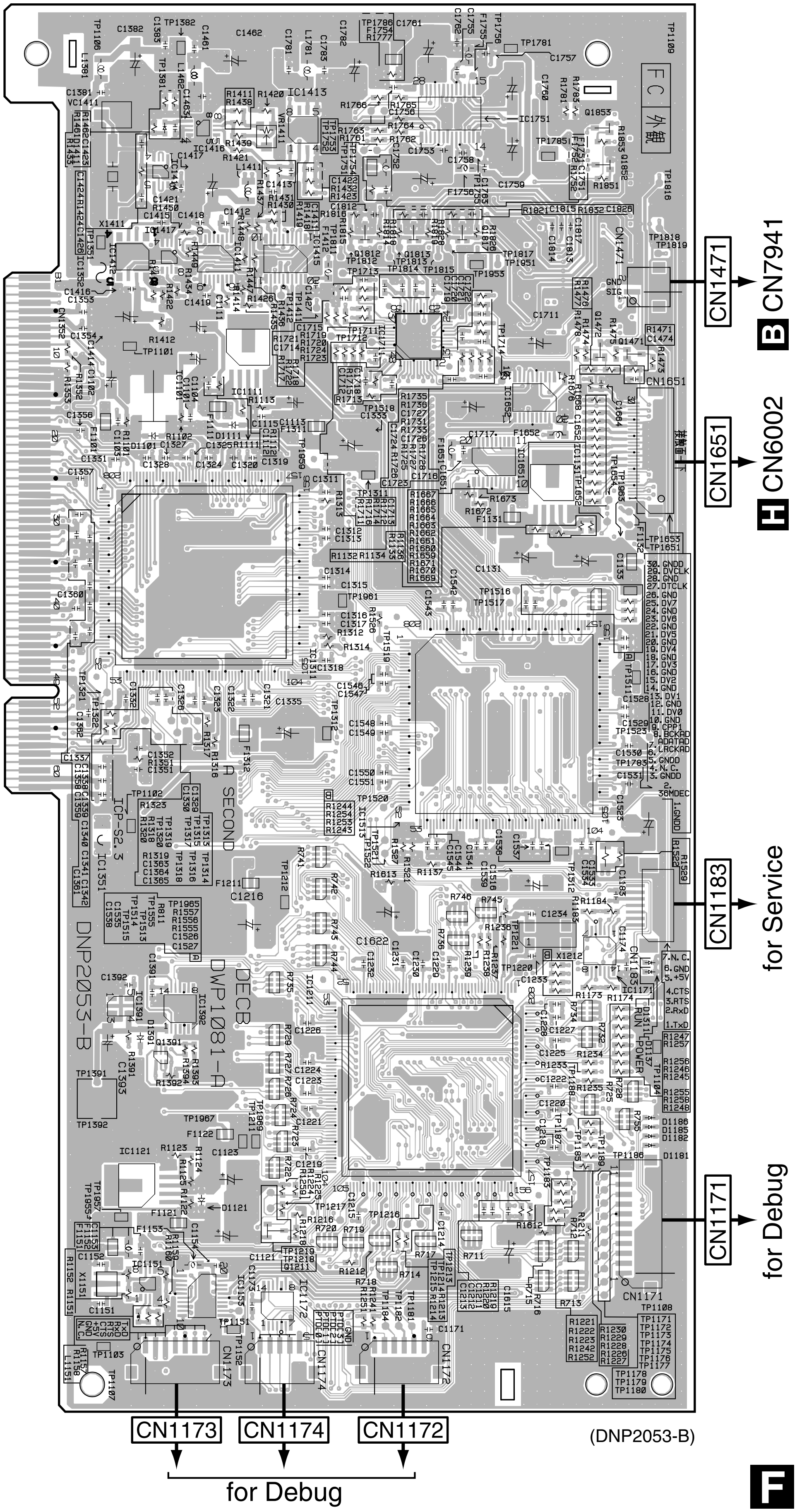
4.2 DECB ASSY

SIDE A

IC1751 VC1411
IC1416 IC1413 Q1853 VR1411
Q1852
IC1414
Q1812 Q1813 Q1817
IC1417 IC1411 IC1415
IC1412
IC1452
IC1711
IC1111 Q1472 Q1471
IC1101 IC1652
IC1651
IC1131
IC1311
IC1513
IC1351
IC1391 IC1392
Q1391
IC1211
IC1121
Q1211
IC1151
IC1153 IC1172

F DECB ASSY

SIDE A



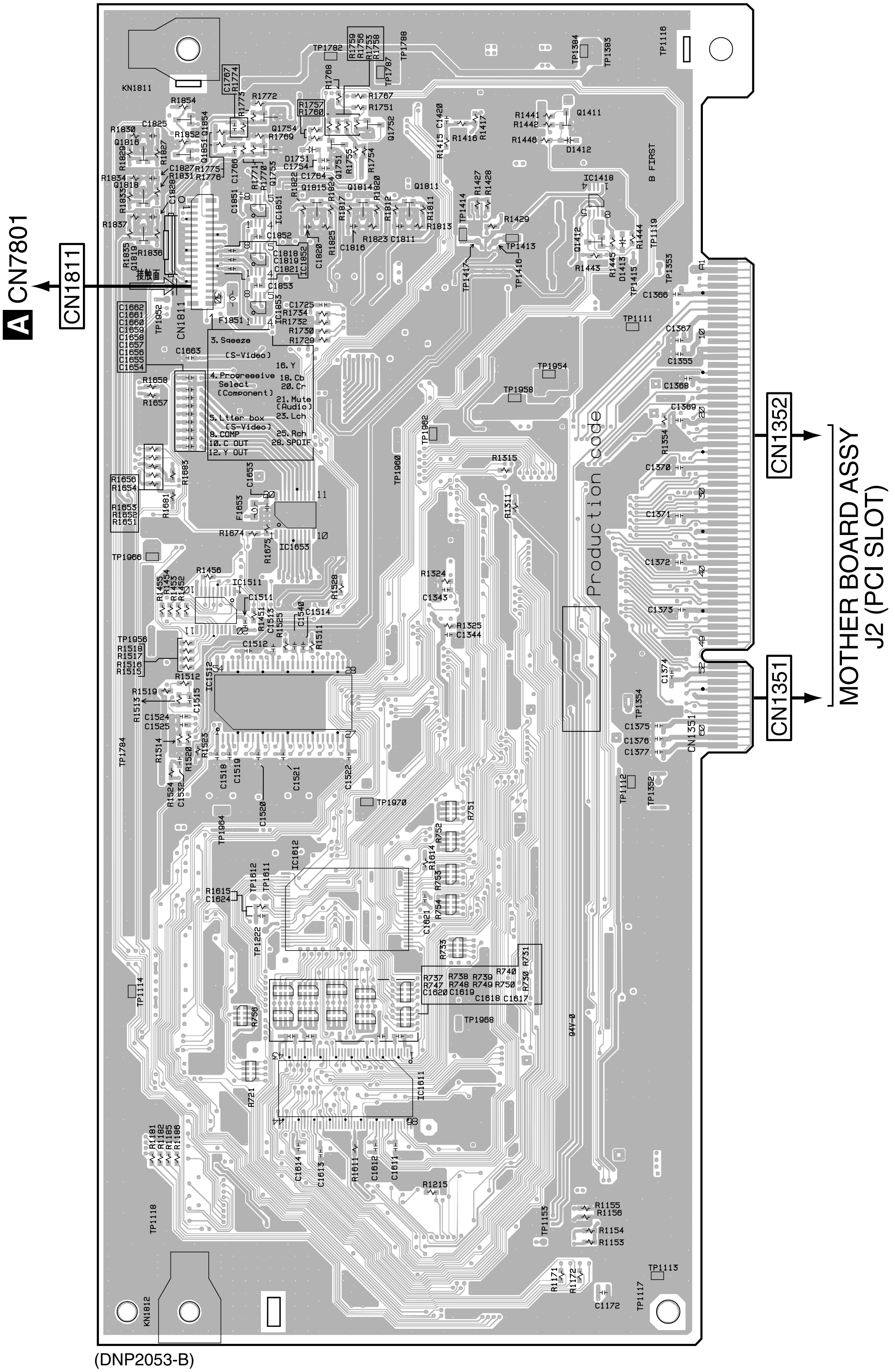
CN1471
B CN7941
CN1651
H CN6002
CN1183
for Service
CN1171
for Debug
CN1173
CN1174
CN1172
for Debug
(DNP2053-B)

SIDE B

F DECB ASSY

SIDE B

A


A CN7801
CN1811
CN1352
CN1351
MOTHER BOARD ASSY
J2 (PCI SLOT)
KN1811
KN1812
接触面
3. Sqeeze
(S-Video)
4. Progressive
Select
(Component)
5. Ltter box
(S-Video)
8. COMP
10. C OUT
12. Y OUT
16. Y
18. Cb
20. Cr
21. Mute
(Audio)
23. Lch
25. Rch
28. SPDIF
IC1851
IC1852
IC1853
IC1653
IC1511
IC1512
IC1612
IC1611
IC1418
Production code
B FIRST
94V-0

(DNP2053-B)

Q1854 Q1754 Q1411
Q1752
Q1751
Q1816 Q1753
Q1851
Q1818 Q1815 IC1418
IC1851 Q1814 Q1811
Q1819
Q1412
IC1852

B

IC1853

IC1653

C

IC1511

IC1512

D

IC1612

E

IC1611

F

F

F

4.3 PCIB ASSY

SIDE A

G PCIB ASSY

SIDE A

A

IC2407 IC2401

B

IC2404

IC2405 IC2303

IC2101

IC2102

C

IC2406 IC2105

IC2309

IC2402

IC2403

IC2108

IC2304

D

IC2110

IC2307

IC2302

IC2104 IC2103

Q2301

IC2308

IC2306

IC2107 IC2106

IC2111

IC2002

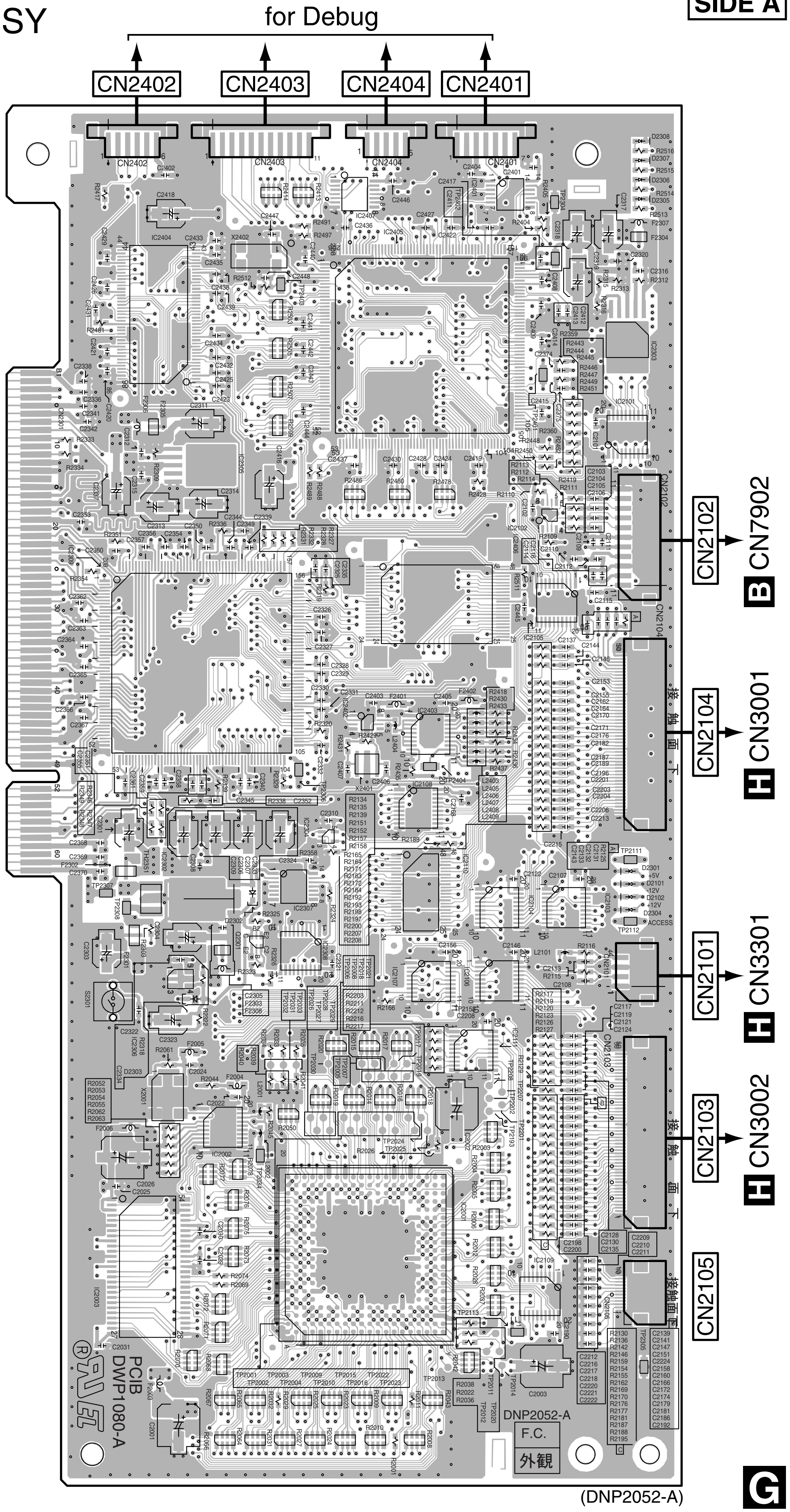
E

IC2001

IC2003

IC2109

F

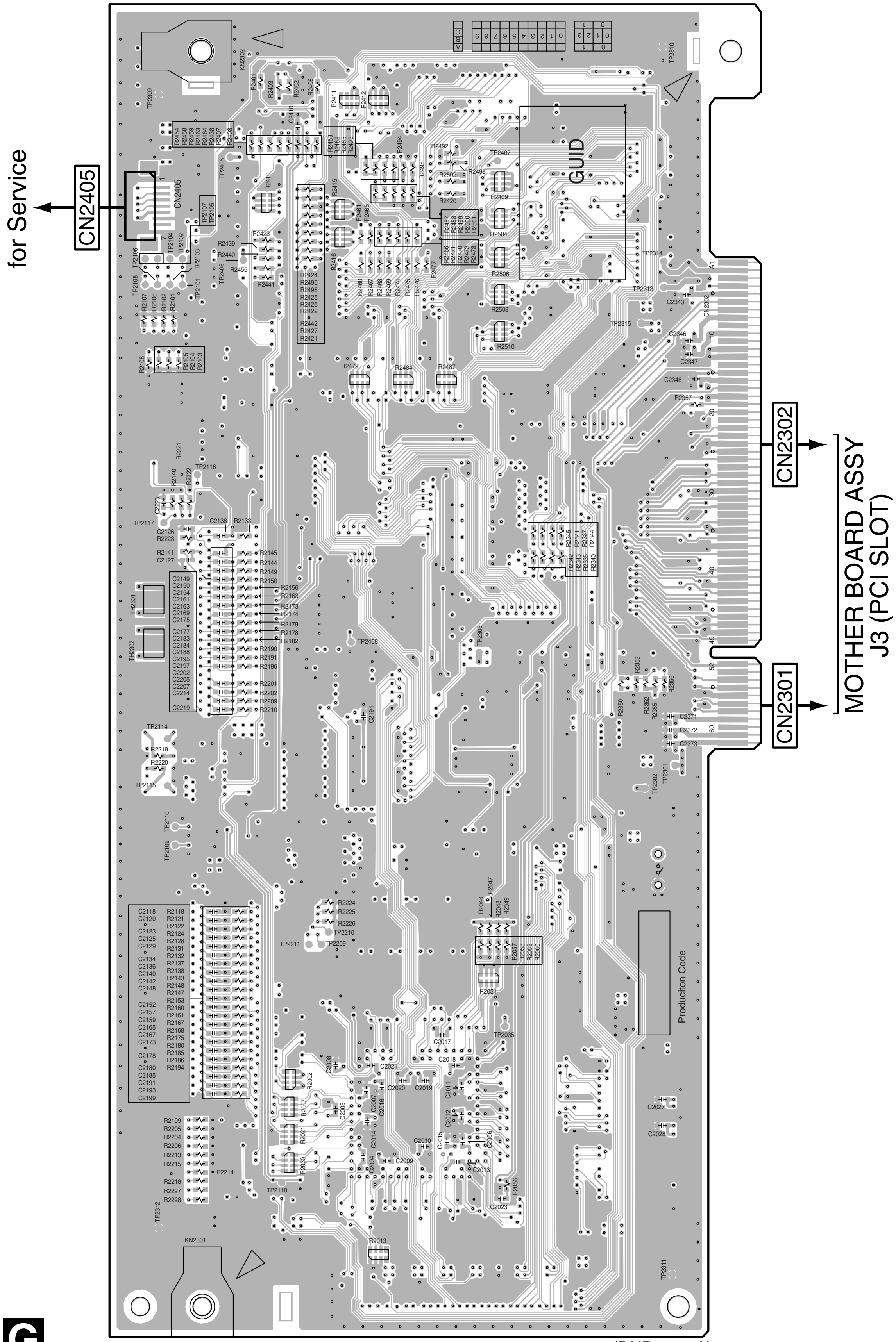

for Debug
CN2402
CN2403
CN2404
CN2401
CN2102
B CN7902
CN2104
H CN3001
接触面下
CN2101
H CN3301
CN2103
H CN3002
接触面下
CN2105
PCIB
DWP-1080-A
DNP2052-A
F.C.
外観

(DNP2052-A)

G **G**

SIDE B **SIDE B**

G PCIB ASSY

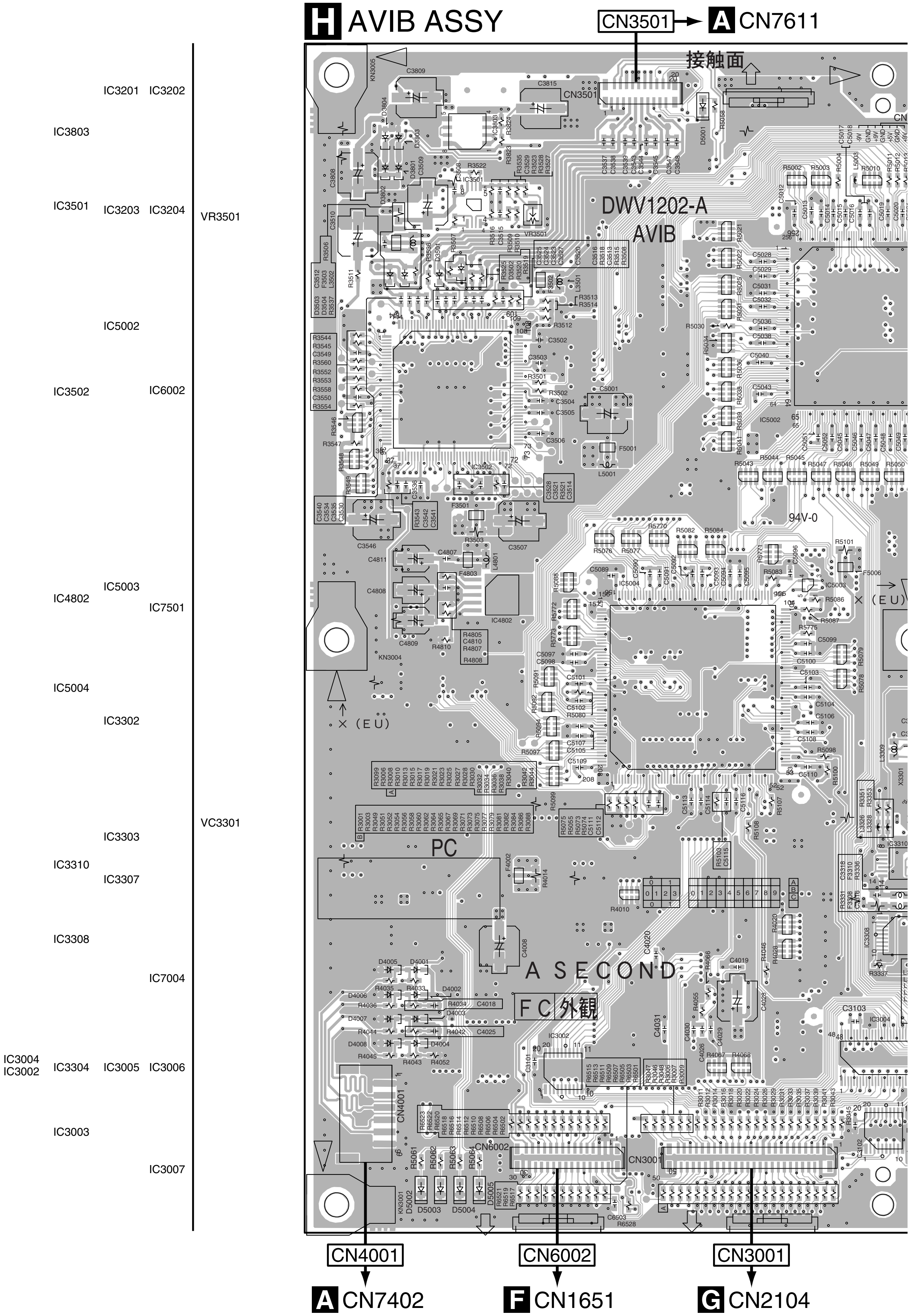

for Service
CN2405
GUID
CN2302
CN2301
MOTHER BOARD ASSY
J3 (PCI SLOT)
Produciton Code
KN2302
KN2301

(DNP2052-A)

G **G**

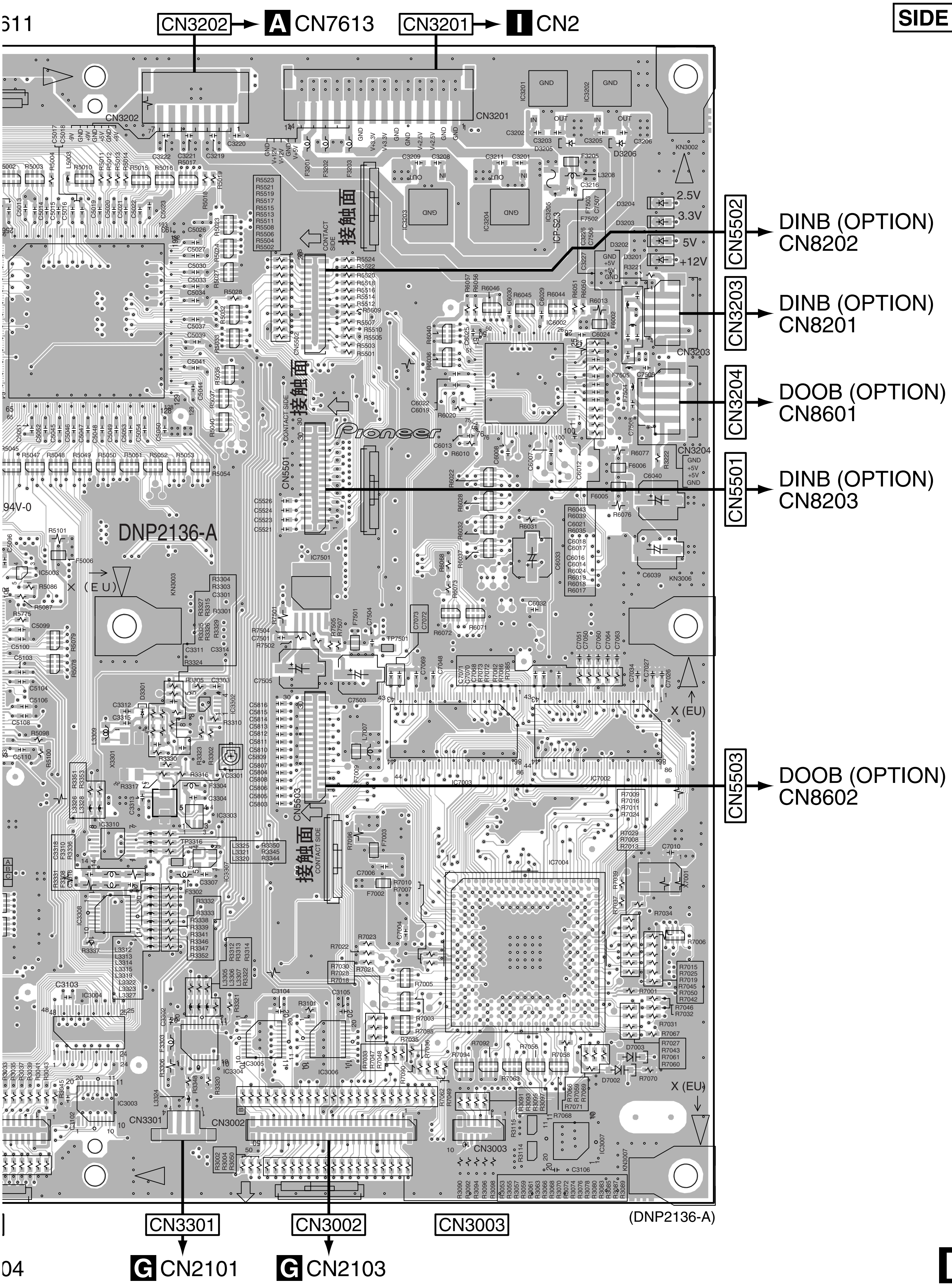
4.4 AVIB ASSY

SIDE A


H AVIB ASSY
CN3501 → A CN7611
接触面
DWV1202-A
AVIB
94V-0
PC
A SECOND
F C 外観
× (E U)
IC3201
IC3202
IC3803
IC3501
IC3203
IC3204
VR3501
IC5002
IC3502
IC6002
IC5003
IC4802
IC7501
IC5004
IC3302
VC3301
IC3303
IC3310
IC3307
IC3308
IC7004
IC3004
IC3002
IC3304
IC3005
IC3006
IC3003
IC3007
CN4001 → A CN7402
CN6002 → F CN1651
CN3001 → G CN2104

H

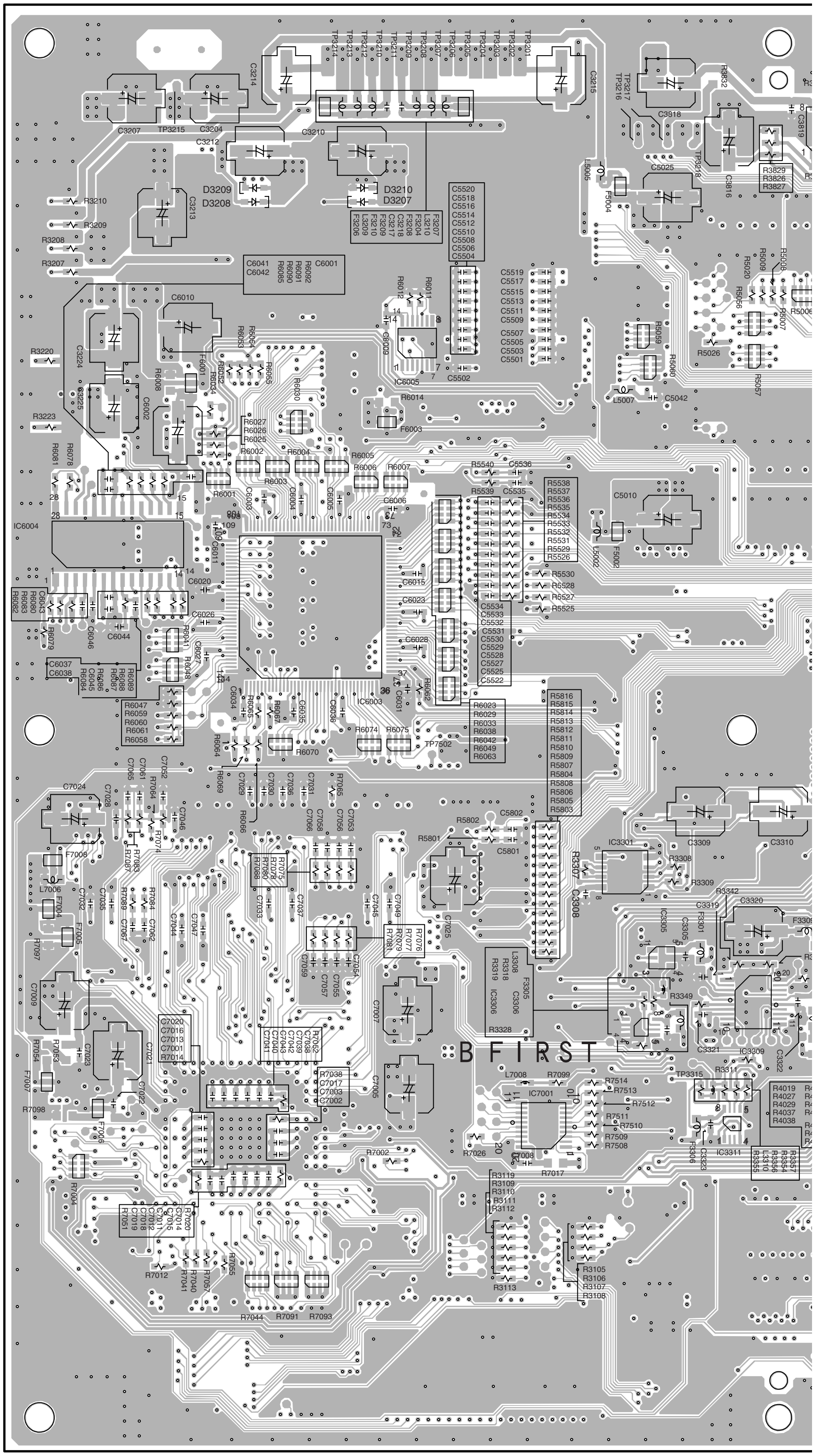
SIDE A


611
CN3202
A CN7613
CN3201
I CN2
DINB (OPTION) CN8202
CN5502
DINB (OPTION) CN8201
CN3203
DOOB (OPTION) CN8601
CN3204
DINB (OPTION) CN8203
CN5501
DOOB (OPTION) CN8602
CN5503
DNP2136-A
Pioneer
接触面
CONTACT SIDE
2.5V
3.3V
5V
+12V
X (EU)
(DNP2136-A)
CN3301
CN3002
CN3003
04
G CN2101
G CN2103

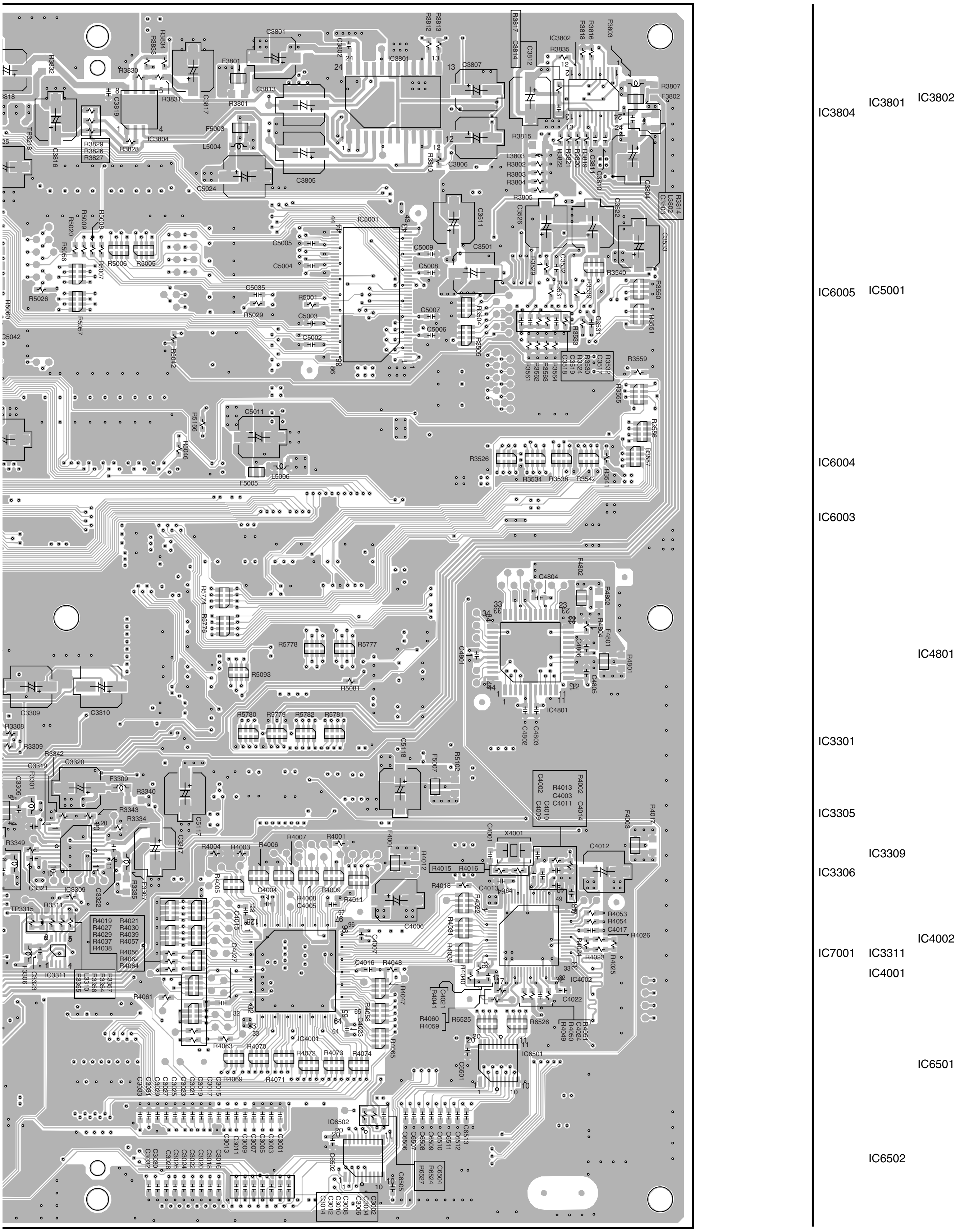
H

SIDE B

H AVIB ASSY


TP3214
TP3213
TP3212
TP3211
TP3210
TP3209
TP3208
TP3207
TP3206
TP3205
TP3204
TP3203
TP3202
TP3201
C3214
C3215
TP3217
TP3216
R3832
C3207
TP3215
C3204
C3210
C3212
C3818
C3819
D3209
D3208
D3210
D3207
C3213
R3210
R3209
R3208
R3207
C5025
C3816
R3829
R3826
R3827
L5005
F5004
C6041
C6042
C6001
R6092
R6091
R6090
R6085
C6010
R6012
R6011
IC6005
C6009
C5502
R3220
C3224
C3225
R3223
R6008
F6001
C6002
R6014
F6003
R6027
R6026
R6025
R6002
R6004
R6003
R6005
R6006
R6007
R6001
C6006
IC6004
IC6003
C6020
C6026
C6044
C6046
C6037
C6038
R6047
R6059
R6060
R6061
R6058
R6070
R6074
R6075
TP7502
R6023
R6029
R6033
R6038
R6042
R6049
R6063
C5519
C5517
C5515
C5513
C5511
C5509
C5507
C5505
C5503
C5501
C5520
C5518
C5516
C5514
C5512
C5510
C5508
C5506
C5504
R5540
C5536
R5539
C5535
R5538
R5537
R5536
R5535
R5534
R5533
R5532
R5531
R5529
R5526
R5530
R5528
R5527
R5525
C5534
C5533
C5532
C5531
C5530
C5529
C5528
C5527
C5525
C5522
C5010
L5002
F5002
R5059
R5060
R5026
L5007
C5042
R5057
R5816
R5815
R5814
R5813
R5812
R5811
R5810
R5809
R5807
R5804
R5808
R5806
R5805
R5803
R5802
C5802
R5801
C5801
IC3301
C3309
C3310
R3308
R3309
R3307
C3308
R3342
C3320
C3319
C3305
F3301
L3308
R3318
R3319
F3305
C3306
R3328
R3349
C3321
IC3309
C3322
TP3315
R3311
R4019
R4027
R4029
R4037
R4038
IC3311
R3355
L3310
R3356
R3354
R3357
F3306
C3323
B FIRST
L7008
R7099
IC7001
R7514
R7513
R7512
R7511
R7510
R7509
R7508
R7026
C7008
R7017
R7002
R3119
R3109
R3110
R3111
R3112
R3113
R3105
R3106
R3107
R3108
C7024
F7008
L7006
F7004
F7005
R7097
C7009
R7054
F7007
R7098
C7023
C7021
C7022
F7006
R7004
C7020
C7016
C7013
C7001
R7014
R7038
C7017
C7003
C7002
C7007
C7005
C7025
R7012
R7040
R7041
R7055
R7044
R7091
R7093

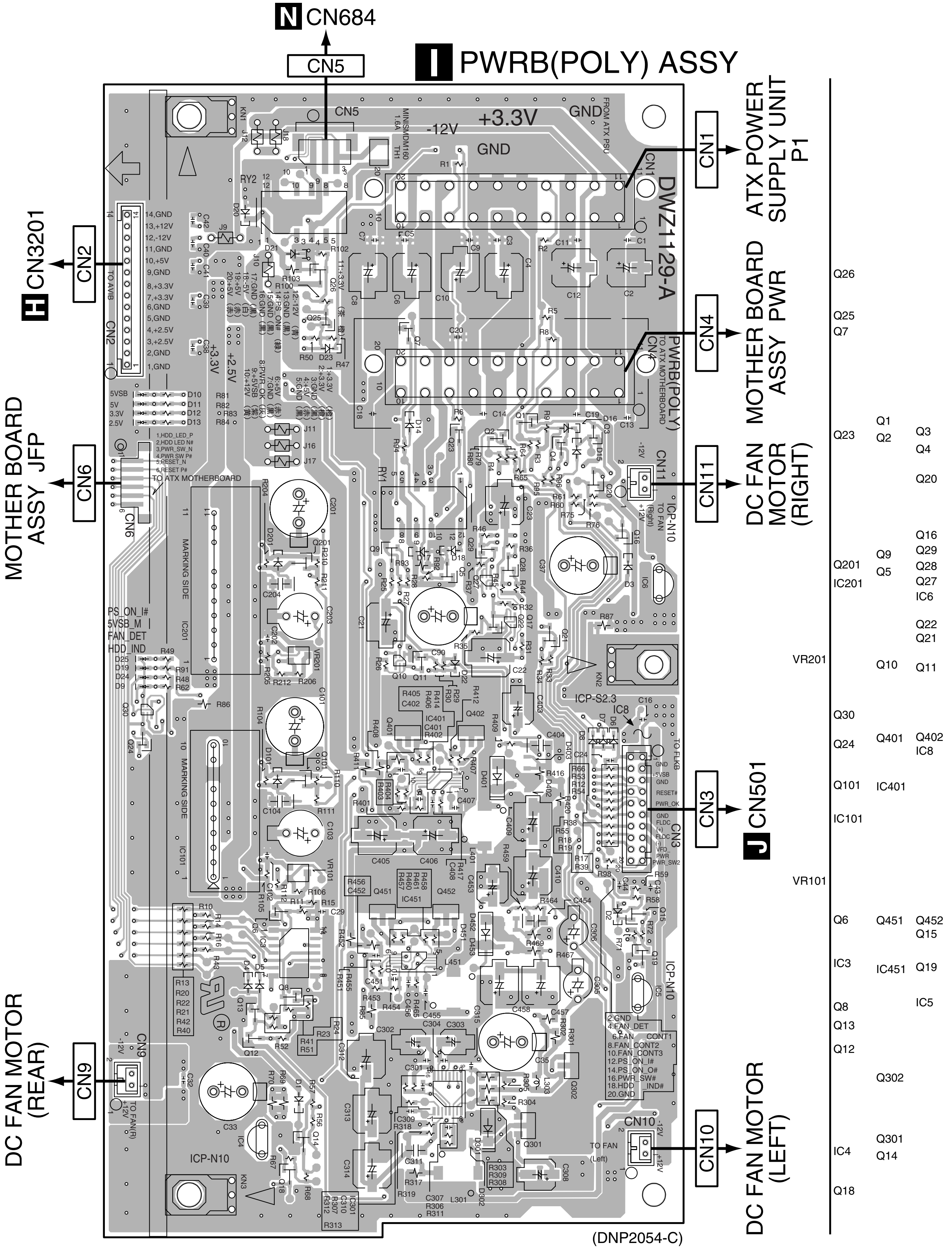
SIDE B


IC3804
IC3801
IC3802
IC6005
IC5001
IC6004
IC6003
IC4801
IC3301
IC3305
IC3309
IC3306
IC4002
IC7001
IC3311
IC4001
IC6501
IC6502

(DNP2136-A)

4.5 PWRB ASSY

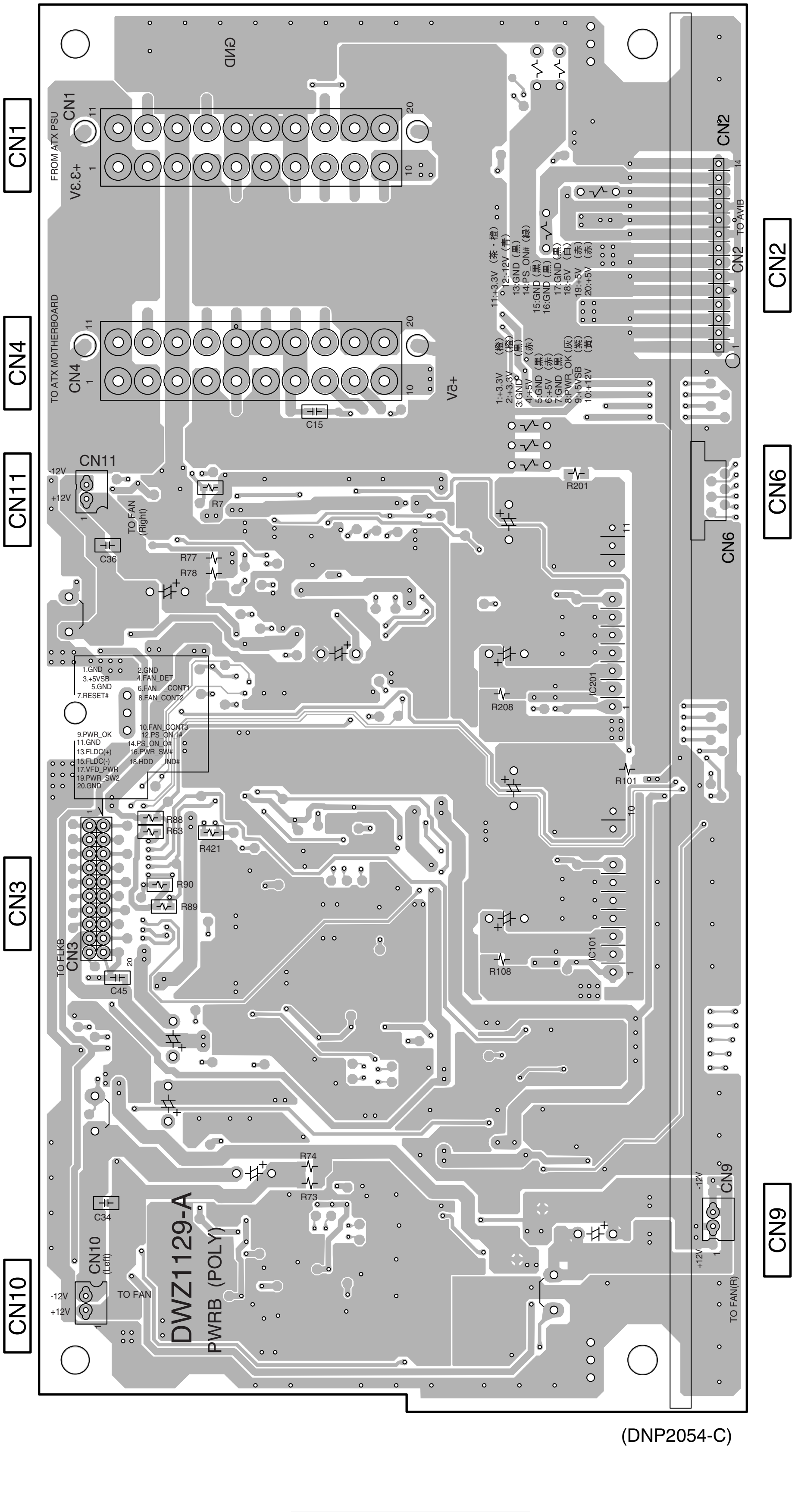
SIDE A **SIDE A**


N CN684
CN5
I PWRB(POLY) ASSY
CN1
ATX POWER SUPPLY UNIT P1
H CN3201
CN2
CN4
MOTHER BOARD ASSY PWR
CN6
MOTHER BOARD ASSY JFP
CN11
DC FAN MOTOR (RIGHT)
CN3
J CN501
CN9
DC FAN MOTOR (REAR)
CN10
DC FAN MOTOR (LEFT)
DWZ1129-A
+3.3V
-12V
GND
FROM ATX PSU
PWRB(POLY) TO ATX MOTHERBOARD
TO A/V/B
14,GND
13,+12V
12,-12V
11,GND
10,+5V
9,GND
8,+3.3V
7,+3.3V
6,GND
5,GND
4,+2.5V
3,+2.5V
2,GND
1,GND
1,HDD_LED_P
2,HDD LED N#
3,PWR_SW_N
4,PWR SW P#
5,RESET_N
6,RESET P#
TO ATX MOTHERBOARD
PS_ON_I#
5VSB_M_I
FAN_DET
HDD_IND
MARKING SIDE
IC201
IC101
VR201
VR101
ICP-N10
ICP-S2.3
TO FAN (Right)
TO FAN (Left)
TO FAN(R)
TO FLKB
2.GND
4.FAN_DET
6.FAN CONT1
8.FAN_CONT2
10.FAN_CONT3
12.PS_ON_I#
14.PS_ON_O#
16.PWR_SW#
18.HDD IND#
20.GND
(DNP2054-C)
Q26
Q25
Q7
Q1
Q23
Q2
Q3
Q4
Q20
Q16
Q29
Q9
Q201
Q5
Q28
IC201
Q27
IC6
Q22
Q21
VR201
Q10
Q11
Q30
Q24
Q401
Q402
IC8
Q101
IC401
IC101
VR101
Q6
Q451
Q452
Q15
IC3
IC451
Q19
Q8
IC5
Q13
Q12
Q302
Q301
IC4
Q14
Q18

SIDE B

SIDE B

I PWRB(POLY) ASSY

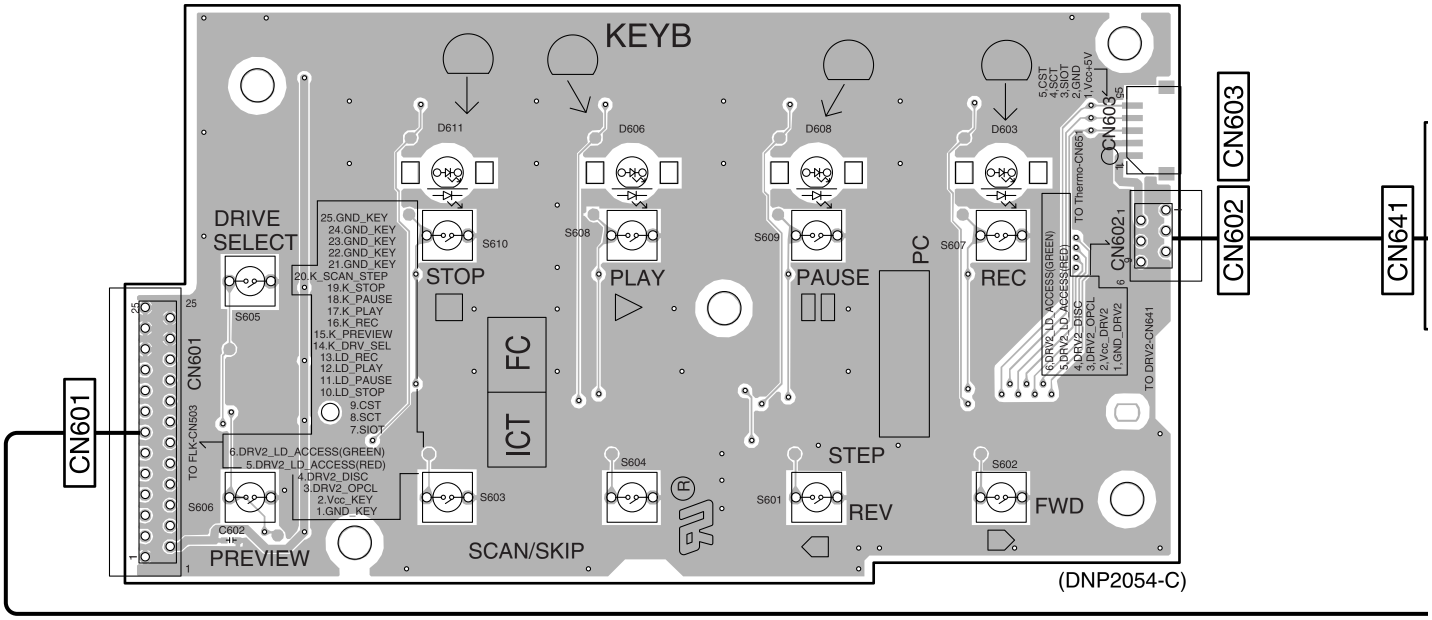

GND
CN1
FROM ATX PSU
+3.3V
11
1
20
10
CN2
14
TO AVIB
CN2
1
11:+3.3V（茶・橙）
12:-12V（青）
13:GND（黒）
14:PS_ON#（緑）
15:GND（黒）
16:GND（黒）
17:GND（黒）
18:-5V（白）
19:+5V（赤）
20:+5V（赤）
1:+3.3V（橙）
2:+3.3V（橙）
3:GND（黒）
4:+5V（赤）
5:GND（黒）
6:+5V（赤）
7:GND（黒）
8:PWR_OK（灰）
9:+5VSB（紫）
10:+12V（黄）
CN4
TO ATX MOTHERBOARD
+5V
C15
CN11
-12V
+12V
TO FAN (Right)
R7
R201
CN6
11
C36
R77
R78
1.GND
3.+5VSB
5.GND
7.RESET#
2.GND
4.FAN_DET
6.FAN _CONT1
8.FAN_CONT2
10.FAN_CONT3
12.PS_ON_I#
14.PS_ON_O#
16.PWR_SW#
18.HDD _IND#
9.PWR_OK
11.GND
13.FLDC(+)
15.FLDC(-)
17.VFD_PWR
19.PWR_SW2
20.GND
IC201
R208
R101
10
R88
R63
R421
R90
R89
CN3
TO FLKB
20
C45
IC101
R108
R74
R73
C34
CN10
(Left)
-12V
+12V
TO FAN
DWZ1129-A
PWRB (POLY)
CN9
-12V
+12V
TO FAN(R)
CN1
CN4
CN11
CN3
CN10
CN2
CN6
CN9

(DNP2054-C)

4.6 FLKB, KEYB, DRV1B, DRV2B and USBB ASSYS

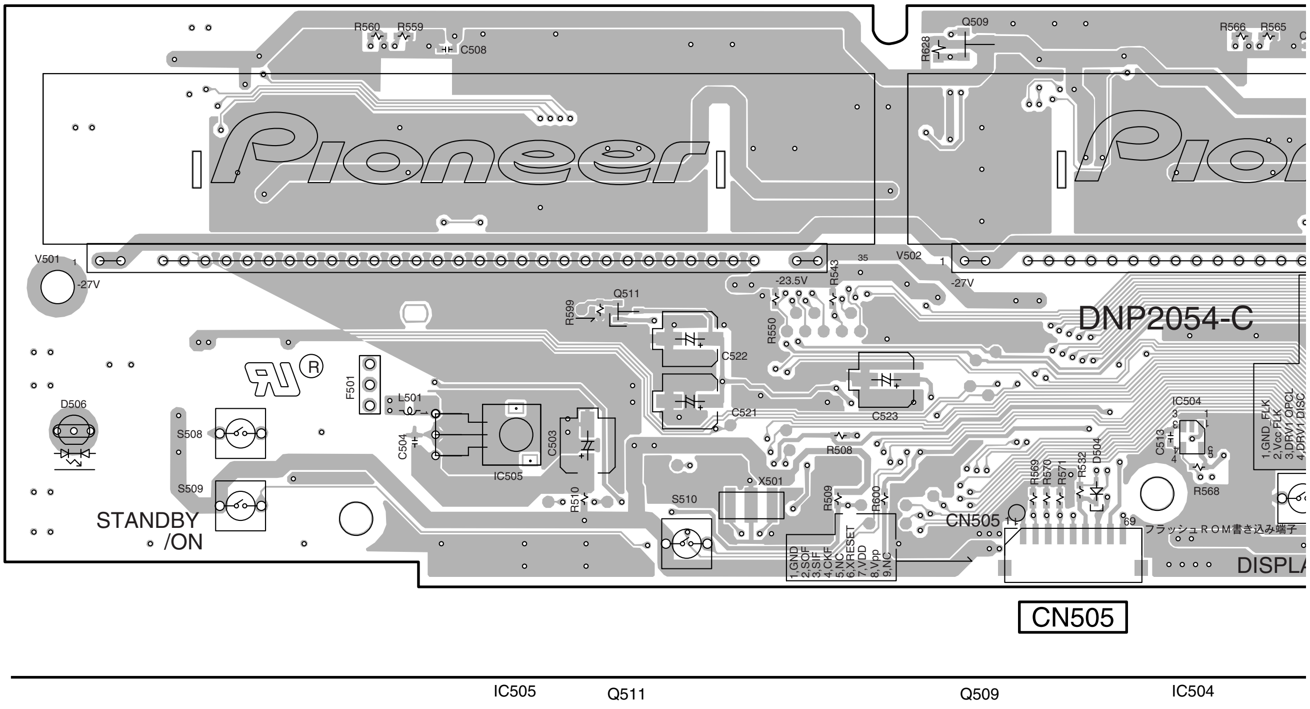
SIDE A

K KEYB(WYV/RB) ASSY


KEYB
D611
D606
D608
D603
DRIVE SELECT
S605
S610
STOP
S608
PLAY
S609
PAUSE
PC
S607
REC
FC
ICT
CN601
25
1
TO FLK-CN503
25.GND_KEY
24.GND_KEY
23.GND_KEY
22.GND_KEY
21.GND_KEY
20.K_SCAN_STEP
19.K_STOP
18.K_PAUSE
17.K_PLAY
16.K_REC
15.K_PREVIEW
14.K_DRV_SEL
13.LD_REC
12.LD_PLAY
11.LD_PAUSE
10.LD_STOP
9.CST
8.SCT
7.SIOT
6.DRV2_LD_ACCESS(GREEN)
5.DRV2_LD_ACCESS(RED)
4.DRV2_DISC
3.DRV2_OPCL
2.Vcc_KEY
1.GND_KEY
S606
C602
PREVIEW
S603
S604
SCAN/SKIP
STEP
S601
REV
S602
FWD
5.CST
4.SCT
3.SIOT
2.GND
1.Vcc+5V
CN603
TO Thermo-CN651
CN602
6.DRV2_LD_ACCESS(GREEN)
5.DRV2_LD_ACCESS(RED)
4.DRV2_DISC
3.DRV2_OPCL
2.Vcc_DRV2
1.GND_DRV2
TO DRV2-CN641
CN641
CN601

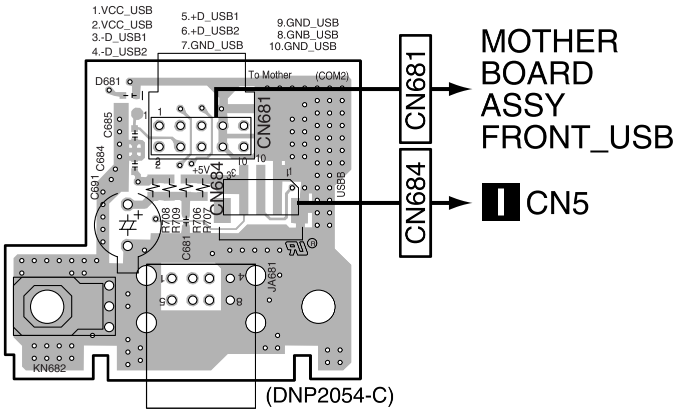
(DNP2054-C)

J FLKB(WYV/RB) ASSY


R560
R559
C508
Q509
R628
R566
R565
Pioneer
V501
-27V
V502
-23.5V
R543
Q511
R599
R550
DNP2054-C
C522
C521
C523
F501
L501
D506
S508
C504
IC505
C503
R508
IC504
C513
1.GND_FLK
2.Vcc FLK
3.DRV1 OPCL
4.DRV1 DISC
S509
R510
S510
X501
R509
R600
R569
R570
R571
R532
D504
R568
CN505
フラッシュＲＯＭ書き込み端子
STANDBY /ON
1.GND
2.SOF
3.SIF
4.CKF
5.NC
6.XRESET
7.VDD
8.Vpp
9.NC
DISPLA
CN505
IC505
Q511
Q509
IC504

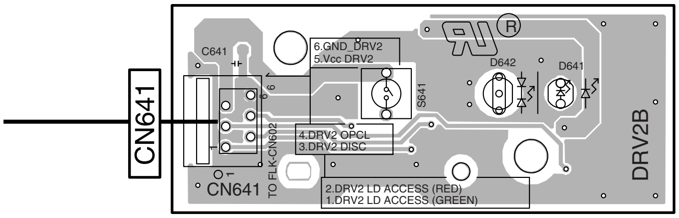
SIDE A

N USBB ASSY

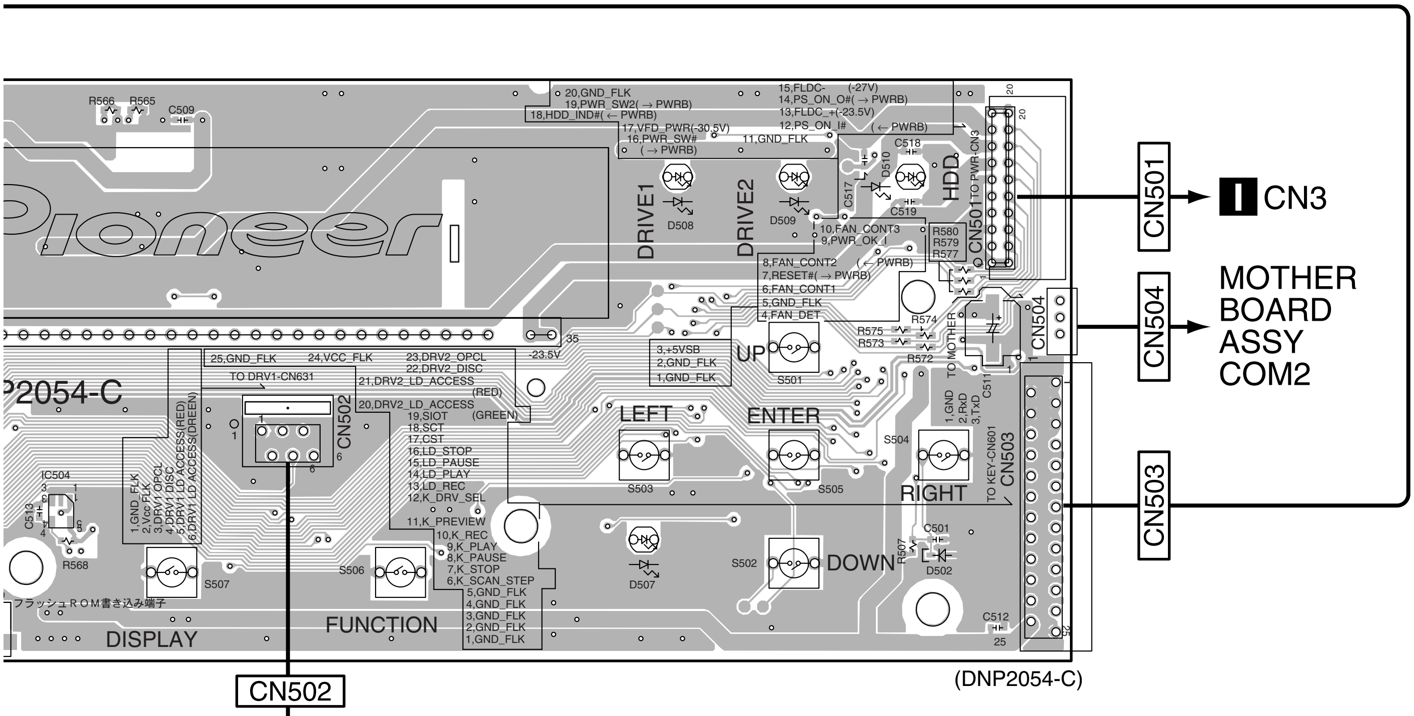

1.VCC_USB
2.VCC_USB
3.-D_USB1
4.-D_USB2
5.+D_USB1
6.+D_USB2
7.GND_USB
9.GND_USB
8.GNB_USB
10.GND_USB
To Mother
(COM2)
D681
C685
C684
C691
CN681
CN684
+5V
R708
R709
R706
R707
C681
JA681
USBB
KN682
CN681
MOTHER BOARD ASSY FRONT_USB
CN684
I CN5

(DNP2054-C)

M DRV2B ASSY


CN641
C641
6.GND_DRV2
5.Vcc DRV2
S641
D642
D641
4.DRV2 OPCL
3.DRV2 DISC
2.DRV2 LD ACCESS (RED)
1.DRV2 LD ACCESS (GREEN)
CN641
TO FLK-CN602
DRV2B

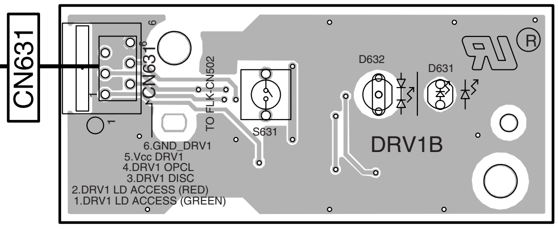
(DNP2054-C)


R566
R565
C509
20,GND_FLK
19,PWR_SW2(→PWRB)
18,HDD_IND#(←PWRB)
17,VFD_PWR(-30.5V)
16,PWR_SW#
(→PWRB)
11,GND_FLK
15,FLDC- (-27V)
14,PS_ON_O#(→PWRB)
13,FLDC_+(-23.5V)
12,PS_ON_I# (←PWRB)
C518
D510
C519
C517
HDD
TO PWR-CN3
CN501
DRIVE1
DRIVE2
D508
D509
10,FAN_CONT3
9,PWR_OK_I
R580
R579
R577
8,FAN_CONT2 (←PWRB)
7,RESET#(→PWRB)
6,FAN_CONT1
5,GND_FLK
4,FAN_DET
R574
R575
R573
R572
TO MOTHER
CN504
35
-23.5V
3,+5VSB
2,GND_FLK
1,GND_FLK
UP
S501
P2054-C
25,GND_FLK
24,VCC_FLK
23,DRV2_OPCL
22,DRV2_DISC
TO DRV1-CN631
21,DRV2_LD_ACCESS (RED)
20,DRV2_LD_ACCESS (GREEN)
19,SIOT
18,SCT
17,CST
16,LD_STOP
15,LD_PAUSE
14,LD_PLAY
13,LD_REC
12,K_DRV_SEL
11,K_PREVIEW
10,K_REC
9,K_PLAY
8,K_PAUSE
7,K_STOP
6,K_SCAN_STEP
5,GND_FLK
4,GND_FLK
3,GND_FLK
2,GND_FLK
1,GND_FLK
CN502
1.GND_FLK
2.Vcc FLK
3.DRV1 OPCL
4.DRV1 DISC
5.DRV1 LD ACCESS(RED)
6.DRV1 LD ACCESS(GREEN)
LEFT
ENTER
S503
S505
S504
RIGHT
1,GND
2,RxD
3,TxD
C511
TO KEY-CN601
CN503
IC504
C513
R568
S507
S506
D507
S502
DOWN
R507
C501
D502
C512
25
フラッシュＲＯＭ書き込み端子
DISPLAY
FUNCTION
CN501
I CN3
CN504
MOTHER BOARD ASSY COM2
CN503
CN502

(DNP2054-C)

IC504

L DRV1B ASSY

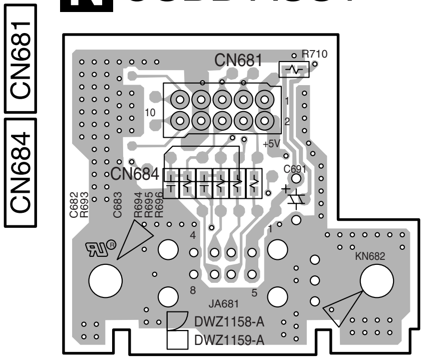

CN631
CN631
TO FLK-CN502
S631
D632
D631
DRV1B
6.GND_DRV1
5.Vcc DRV1
4.DRV1 OPCL
3.DRV1 DISC
2.DRV1 LD ACCESS (RED)
1.DRV1 LD ACCESS (GREEN)

(DNP2054-C)

J L M N

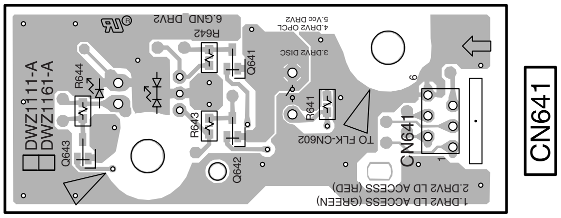
SIDE B

N USBB ASSY


CN681
CN684
CN681
R710
CN684
C691
C682
R693
C683
R694
R695
R696
KN682
JA681
DWZ1158-A
DWZ1159-A
+5V

(DNP2054-C)

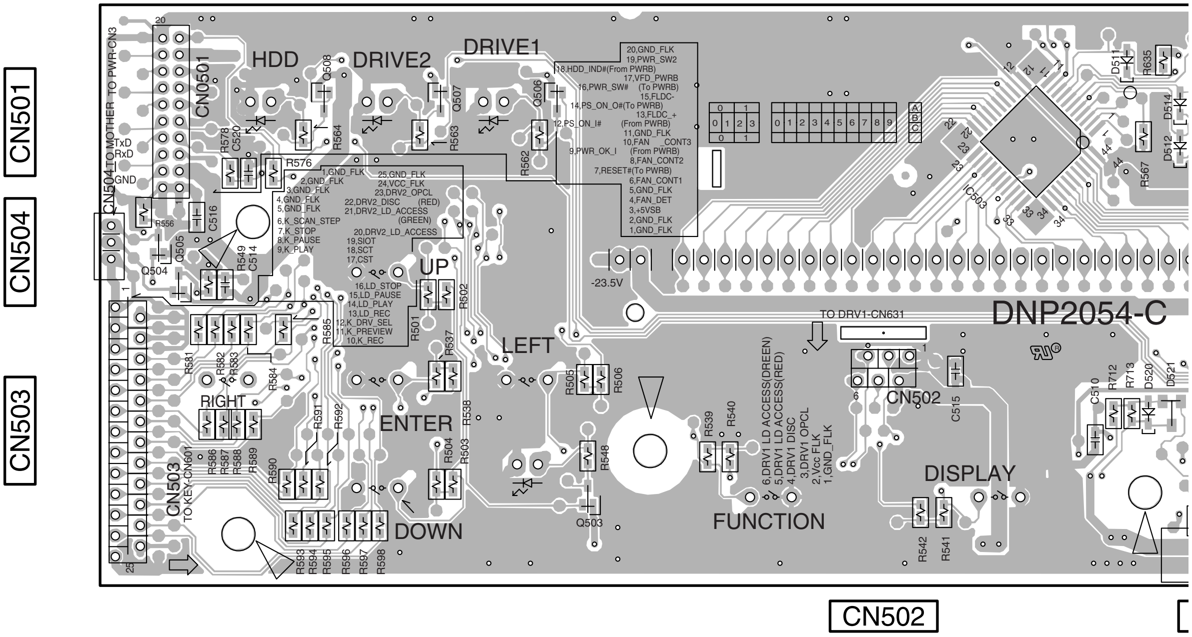
M DRV2B ASSY


CN641
DWZ1111-A
DWZ1161-A
R644
Q643
R642
Q641
R643
Q642
R641
CN641
TO FLK-CN602
6.GND_DRV2
5.Vcc DRV2
4.DRV2 OPCL
3.DRV2 DISC
2.DRV2 LD ACCESS (RED)
1.DRV2 LD ACCESS (GREEN)

(DNP2054-C)

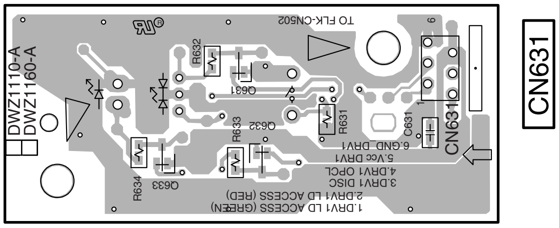
Q641
Q643 Q642

J FLKB(WYV/RB) ASSY


CN501
CN504
CN503
CN502
CN0501
TO MOTHER TO PWR-CN3
HDD
DRIVE2
DRIVE1
UP
LEFT
RIGHT
ENTER
DOWN
FUNCTION
DISPLAY
DNP2054-C
TO DRV1-CN631
CN502
CN503 TO KEY-CN601
IC503
Q503
Q504
Q505
Q506
Q507
Q508
-23.5V
TxD
RxD
GND

Q505 Q508 Q507 Q506 IC503
Q504 Q503

L DRV1B ASSY

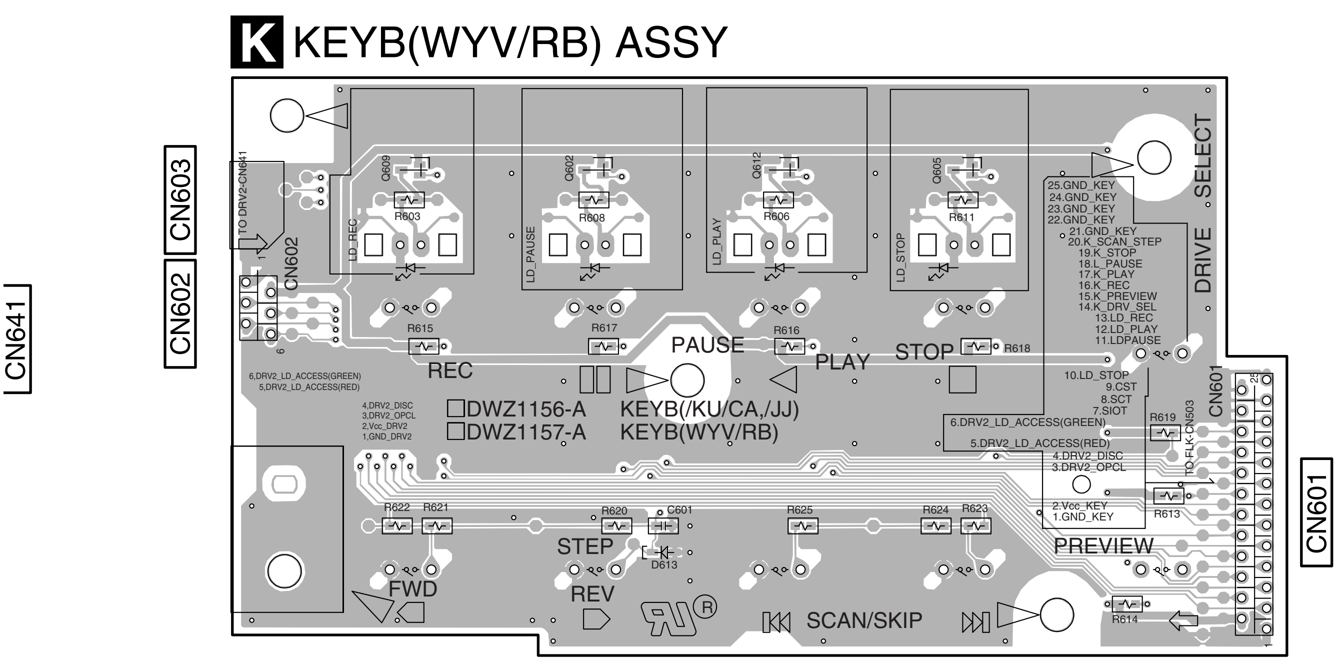

CN631
DWZ1110-A
DWZ1160-A
TO FLK-CN502
R632
Q631
R633
Q632
R631
C631
R634
Q633
CN631
6.GND_DRV1
5.Vcc DRV1
4.DRV1 OPCL
3.DRV1 DISC
2.DRV1 LD ACCESS (RED)
1.DRV1 LD ACCESS (GREEN)

(DNP2054-C)

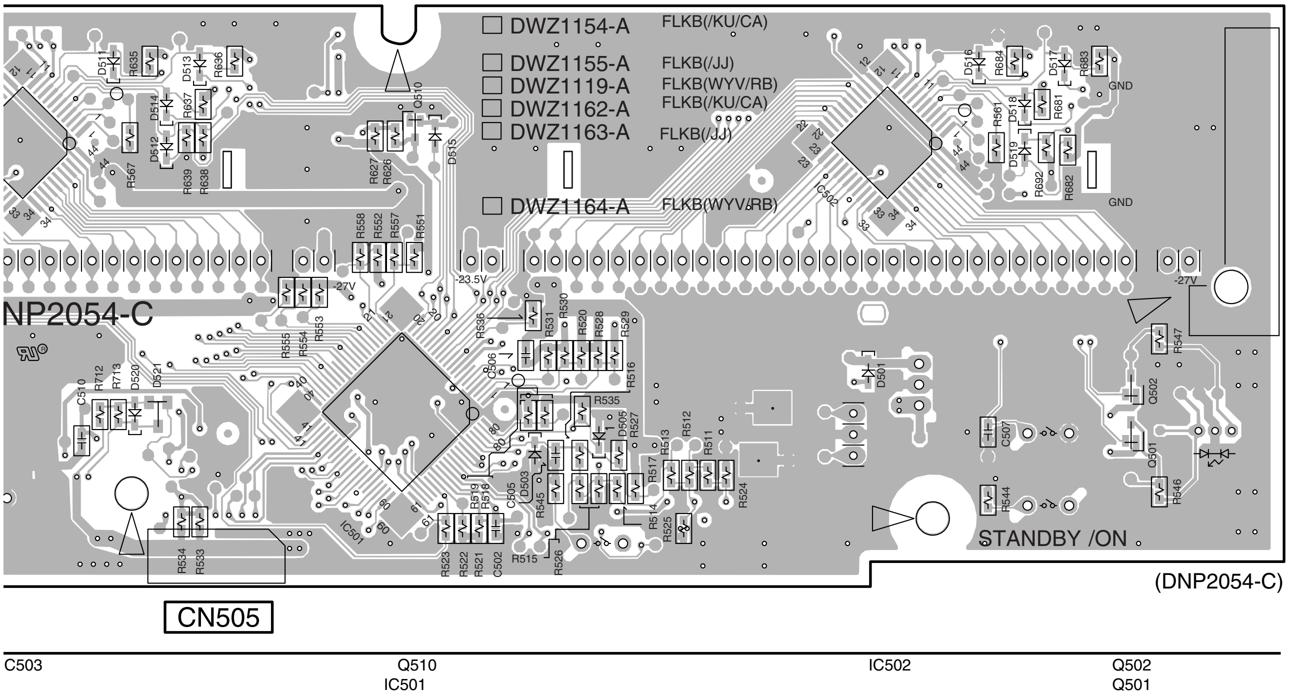
Q631
Q633 Q632

SIDE B

K KEYB(WYV/RB) ASSY


Q609
Q602
Q612
Q605
CN641
CN603
CN602
TO DRV2-CN641
LD_REC
LD_PAUSE
LD_PLAY
LD_STOP
R603
R608
R606
R611
R615
R617
R616
R618
REC
PAUSE
PLAY
STOP
SELECT
DRIVE
25.GND_KEY
24.GND_KEY
23.GND_KEY
22.GND_KEY
21.GND_KEY
20.K_SCAN_STEP
19.K_STOP
18.L_PAUSE
17.K_PLAY
16.K_REC
15.K_PREVIEW
14.K_DRV_SEL
13.LD_REC
12.LD_PLAY
11.LDPAUSE
10.LD_STOP
9.CST
8.SCT
7.SIOT
6.DRV2_LD_ACCESS(GREEN)
5.DRV2_LD_ACCESS(RED)
4.DRV2_DISC
3.DRV2_OPCL
2.Vcc_KEY
1.GND_KEY
6,DRV2_LD_ACCESS(GREEN)
5,DRV2_LD_ACCESS(RED)
4,DRV2_DISC
3,DRV2_OPCL
2,Vcc_DRV2
1,GND_DRV2
☐DWZ1156-A KEYB(/KU/CA,/JJ)
☐DWZ1157-A KEYB(WYV/RB)
CN601
TO FLK-CN503
R619
R613
R622
R621
R620
C601
D613
R625
R624
R623
STEP
FWD
REV
PREVIEW
SCAN/SKIP
R614

(DNP2054-C)


☐ DWZ1154-A FLKB(/KU/CA)
☐ DWZ1155-A FLKB(/JJ)
☐ DWZ1119-A FLKB(WYV/RB)
☐ DWZ1162-A FLKB(/KU/CA)
☐ DWZ1163-A FLKB(/JJ)
☐ DWZ1164-A FLKB(WYV/RB)
NP2054-C
D511
R635
D513
R636
D514
R637
D512
R639
R638
R567
Q510
D515
R627
R626
R558
R552
R557
R551
-27V
-23.5V
R555
R554
R553
R536
R531
R530
R520
R528
R529
R516
C506
R535
D505
R527
R513
R512
R511
R517
R524
R514
R525
R519
R518
C505
D503
R545
R523
R522
R521
C502
R515
R526
IC501
C510
R712
R713
D520
D521
R534
R533
CN505
D516
R684
D517
R683
GND
R561
D518
R681
D519
R692
R682
IC502
D501
C507
R544
R547
Q502
Q501
R546
STANDBY /ON
C503
Q510
IC501
IC502
Q502
Q501

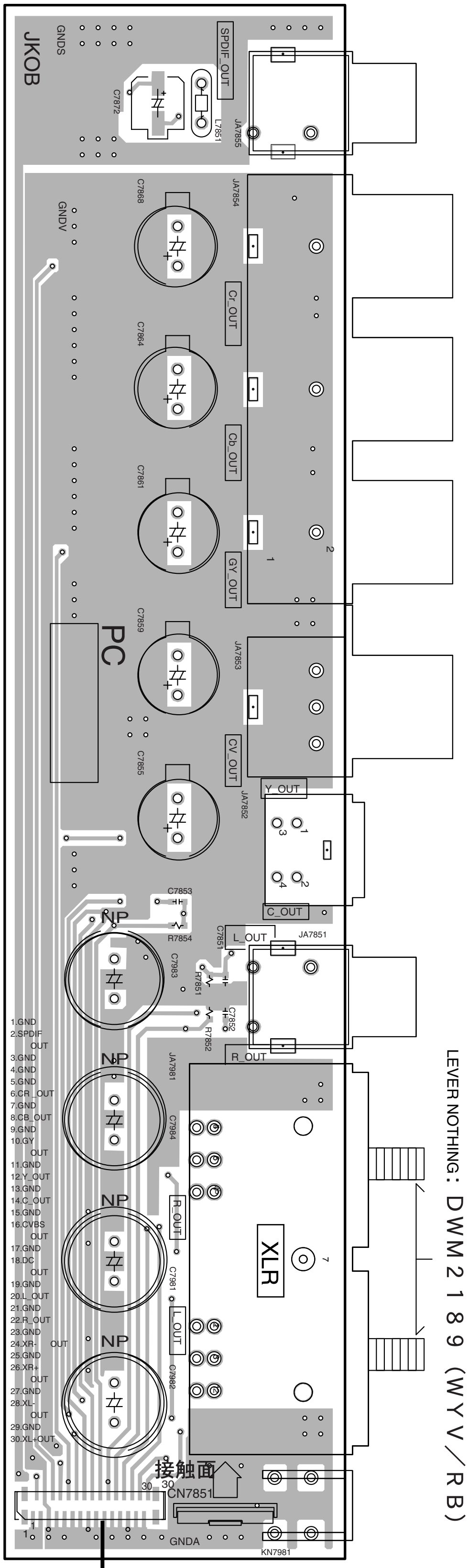
(DNP2054-C)

J K

4.7 JKOB ASSY

SIDE A

E JKOB ASSY


JKOB
GNDS
SPDIF_OUT
C7872
L7851
JA7855
C7868
JA7854
GNDV
Cr_OUT
C7864
Cb_OUT
C7861
GY_OUT
C7859
PC
JA7853
CV_OUT
C7855
JA7852
Y_OUT
C_OUT
C7853
R7854
C7851
L_OUT
JA7851
C7983
R7851
C7852
R7852
R_OUT
JA7981
NP
C7984
C7981
C7982
XLR
1.GND
2.SPDIF OUT
3.GND
4.GND
5.GND
6.CR_OUT
7.GND
8.CB_OUT
9.GND
10.GY OUT
11.GND
12.Y_OUT
13.GND
14.C_OUT
15.GND
16.CVBS OUT
17.GND
18.DC OUT
19.GND
20.L_OUT
21.GND
22.R_OUT
23.GND
24.XR- OUT
25.GND
26.XR+ OUT
27.GND
28.XL- OUT
29.GND
30.XL+OUT
接触面
CN7851
GNDA
KN7981
LEVER NOTHING: DWM2189 (WYV/RB)

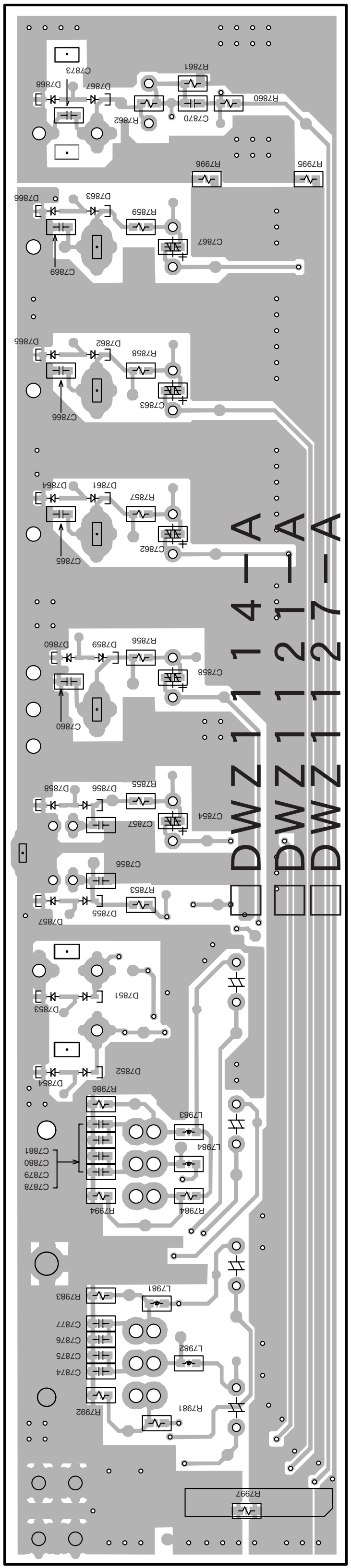
(DNP2096-A)

CN7851

E **A** CN7802

SIDE B

E JKOB ASSY


C7873
R7861
D7868
D7867
R7860
R7862
C7870
R7996
R7995
D7866
D7863
R7859
C7867
C7869
D7865
D7862
R7858
C7863
C7866
D7864
D7861
R7857
C7862
C7865
D7860
D7859
R7856
C7858
C7860
D7858
D7856
R7855
C7857
C7854
C7856
R7853
D7855
D7857
D7851
D7853
D7852
D7854
R7986
L7983
L7984
C7881
C7880
C7879
C7878
R7994
R7984
R7983
L7981
C7877
C7876
C7875
C7874
L7982
R7992
R7981
R7997
DWZ1114-A
DWZ1121-A
DWZ1127-A

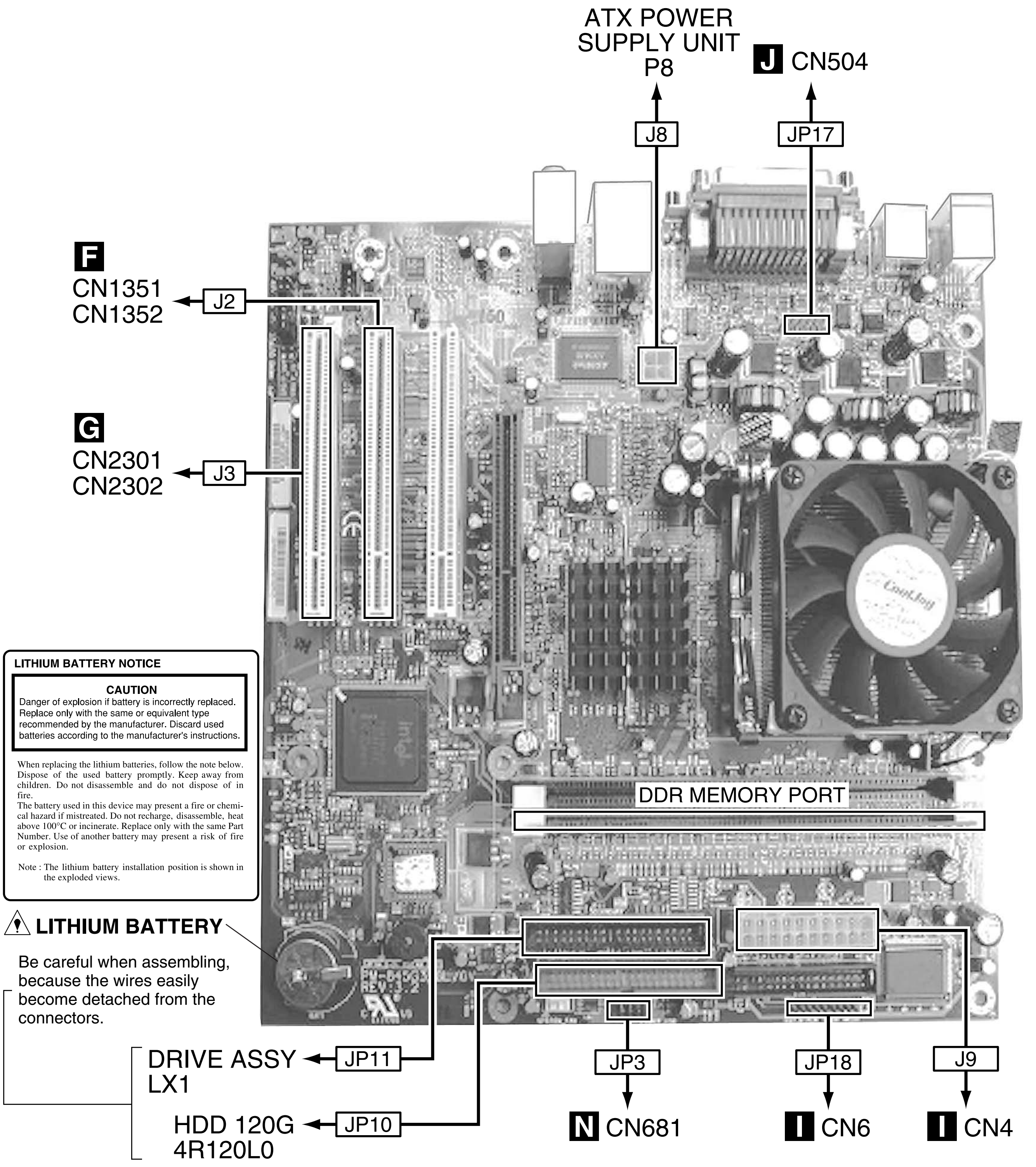
(DNP2096-A)

CN7851

E

4.8 MOTHER BOARD ASSY

Connection Diagram of the MOTHER BOARD ASSY



LITHIUM BATTERY NOTICE

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

When replacing the lithium batteries, follow the note below. Dispose of the used battery promptly. Keep away from children. Do not disassemble and do not dispose of in fire.
The battery used in this device may present a fire or chemical hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate. Replace only with the same Part Number. Use of another battery may present a risk of fire or explosion.

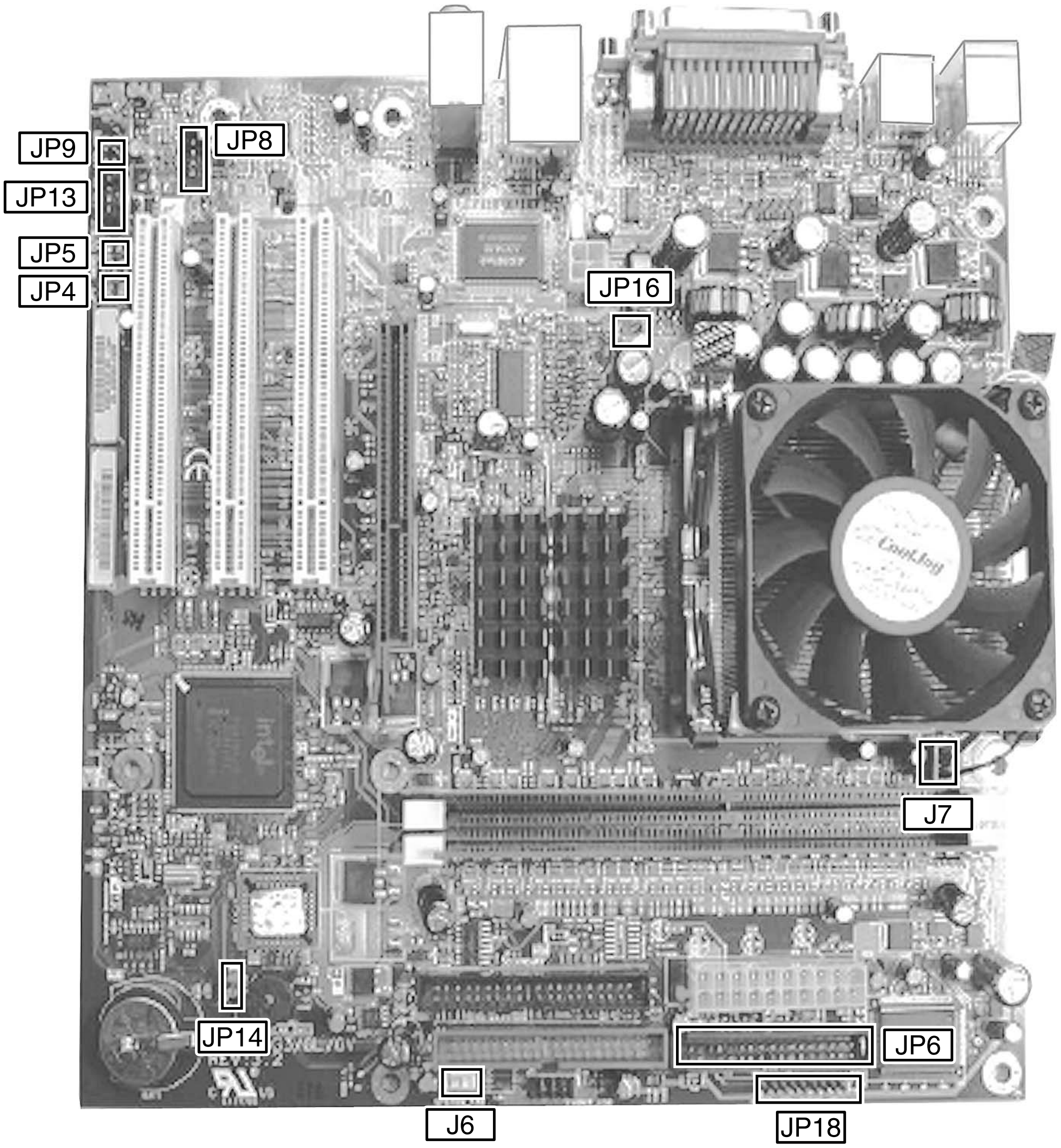
Note : The lithium battery installation position is shown in the exploded views.

⚠ **LITHIUM BATTERY**

Be careful when assembling, because the wires easily become detached from the connectors.

J8 (DKP3656): For CPU_12 V.
The connector has a different shape to prevent erroneous connection.
J9 (DKP3657): For ATX power supply.
The connector has a different shape to prevent erroneous connection.
JP3 (DKP3646): For USB.
The black tube is attached to the cable on the side of the Motherboard.
The connector is designed to prevent erroneous connection to a 9-pin connector.
JP10 (DKP3647): For the IDE Primary (HDD).
The connector has a different shape to prevent erroneous connection.
JP11 (DKP3648): For the IDE Secondary (DVD drive).
The connector has a different shape to prevent erroneous connection.
JP17 (DKP3645): For COM2.
To prevent erroneous connection to a 10-pin connector, some of the pin holes are filled.
JP18 (DKP3635): For FPIO.
Be careful of the direction. Align the white mark with Pin 1.
Make sure that the cable is not twisted after connection.

Notes on the Connectors Mounted on the MOTHER BOARD Assy

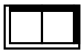

JP9
JP8
JP13
JP5
JP4
JP16
J7
JP14
JP6
J6
JP18

● Initial setting of the jumper switches

- The figure is a top view of a jumper switch.
- Above Pin 1 of a switch, a gray mark (shown in the figure on the right) is provided. With some switches, there will be a white mark above Pin 1 on the Motherboard.

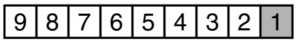
- The position of the latch of a switch is indicated with a thick line, as shown in the figure on the right.

- The initial setting of a jumper switch is indicated by double lines, as shown in the figure on the right.



JP18 : Jumper switch for Power button, Reset, HDD LED, and Power LED

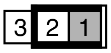
1 (–) - 2 (+)	IDE LED
3 (+) - 4 (+) 5 (–)	Power LED
6 (+) - 7 (–)	Power button
8 (–) - 9 (+)	Reset button



DKP3635 (Color of the cable: white) to Pin 1 of the jumper switch, as shown above.
If inappropriately connected, the unit will not start up.

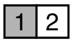
JP14 : CMOS clear

1 - 2 : Position for normal use (factory-preset position)
2 - 3 : CMOS clear



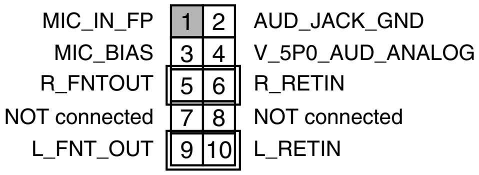
JP4 : SERIRQ for PCI Slot 3

OPEN : SERIRQ invalid (factory-preset position, SERIRQ not supported)
SHORT : SERIRQ valid



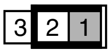
JP9 : Connector for audio and front panel

At the shipping, the jumper pins are connected to Pins 5-6 and Pins 9-10.


MIC_IN_FP
1
2
AUD_JACK_GND
MIC_BIAS
3
4
V_5P0_AUD_ANALOG
R_FNTOUT
5
6
R_RETIN
NOT connected
7
8
NOT connected
L_FNT_OUT
9
10
L_RETIN

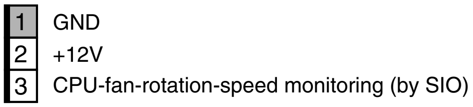
JP16 : Selection of the clock frequency

1 - 2 : CPU select (factory-preset position)
2 - 3 : 100MHz
EMPTY : 133MHz



J7 : CPU fan jumper switch

Connect a CPU fan whose rotation-speed monitoring is supported.


1
GND
2
+12V
3
CPU-fan-rotation-speed monitoring (by SIO)

Note: The CPU fan is installed in this unit at the factory.

No jumper pin or wire is connected to JP4, JP5, JP6, JP8, JP13, or J6.

5. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10^1 → 561 .... RD1/4PU$\boxed{5}\boxed{6}\boxed{1}$J
47k Ω → 47 x 10^3 → 473 .... RD1/4PU$\boxed{4}\boxed{7}\boxed{3}$J
0.5 Ω → R50 .... RN2H$\boxed{R}\boxed{5}\boxed{0}$K
1 Ω → 1R0 .... RS1P$\boxed{1}\boxed{R}\boxed{0}$K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 x 10^1 → 5621 .... RN1/4PC$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

LIST OF ASSEMBLIES

Mark	No. Description	Part No.
NSP	1..ETC1 ASSY	DWM2160
	2..PWRB(POLY) ASSY	DWZ1129
	2..FLKB(WYV/RB) ASSY	DWZ1164
	2..KEYB(WYV/RB) ASSY	DWZ1157
	2..USBB ASSY	DWZ1159
	2..DRV1B ASSY	DWZ1160
	2..DRV2B ASSY	DWZ1161
NSP	1..ETC2 ASSY	DWM2189
	2..JKIB ASSY	DWZ1126
	2..JKOB ASSY	DWZ1127
	2..HPVB ASSY	DWZ1128
	2..422IB ASSY	DWZ1133
	2..JKDB ASSY	DWZ1134
	1..PCIB ASSY	DWP1080
	1..DECB ASSY	DWP1081
	1..AVIB ASSY	DWV1202
⚠	1..MOTHER BOARD ASSY	DXF1007(*1)

(*1)
- Replace the whole MOTHER BOARD Assy. No part in the MOTHER BOARD Assy is provided as a repair parts.
- MOTHER BOARD Assy is supplied with lithium battery.

A JKIB ASSY

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC7401	BA7046F
	IC7803	LA73054
	IC7418, IC7423	MM1113XF
	IC7403	MM1114XF
	IC7404, IC7412, IC7414, IC7416, IC7422	MM1117XF
	IC7409	MM1118XF
	IC7701, IC7703, IC7704, IC7706	NJM4556AM
	IC7707-IC7710	NJM5532MD
⚠	IC7711	NJM78M05DL1A
	IC7622	PST9245
	IC7611, IC7614, IC7615, IC7618, IC7702	TC4W53FU
	IC7705, IC7802	TC4W53FU
	IC7402	TC7WH123FU
	IC7405, IC7410, IC7413, IC7415	TK15420M
	IC7419-IC7421	TK15420M
	IC7612, IC7613, IC7616, IC7617	UPC4570G2
	IC7619-IC7621	UPC4570G2
	Q7702, Q7714, Q7716	2SA1037K
	Q7409, Q7413, Q7414, Q7417, Q7420	2SA1576A
	Q7423	2SA1576A
	Q7831	2SC2412K
	Q7415, Q7418, Q7421, Q7424, Q7425	2SC4081
	Q7703-Q7712	2SD2114K
	Q7412	2SK210
	Q7426, Q7701, Q7713, Q7715	DTC114YK
	Q7613	DTC143EK
	Q7408, Q7410	HN1A01FU
	Q7416, Q7419, Q7422	HN1B01FU
	Q7407, Q7411	HN1C01FU
	Q7401, Q7402, Q7404, Q7405	RN4982
	Q7611, Q7612, Q7802-Q7804	RN4982
	D7611-D7618, D7623, D7624, D7701	1SS355
	D7401	MA111
	D7619-D7622	SML-310DT
	D7402-D7413, D7601-D7604	UDZS5R1(B)

COILS AND FILTERS

Mark	No. Description	Part No.
	L7620, L7621, L7624, L7625	BTH1119
	F7412, F7414-F7419, F7802, F7831	DTF1069
	F7401-F7404	DTF1110
	L7961-L7964	VTL1089

SWITCHES AND RELAYS

Mark	No. Description	Part No.
	RY7611	BSR1014

CAPACITORS

Mark	No. Description	Part No.
	C7437, C7635, C7644, C7646, C7654	CCSRCH100D50
	C7413, C7433, C7474, C7475, C7477	CCSRCH101J50
	C7636, C7642, C7647, C7655, C7737	CCSRCH220J50
	C7741, C7748, C7753, C7961, C7963	CCSRCH220J50
	C7965, C7967	CCSRCH220J50
	C7409, C7601, C7602	CCSRCH221J50
	C7405	CCSRCH390J50
	C7706, C7726	CCSRCH471J50
	C7707, C7723	CCSRCH750J50
	C7805, C7817	CEVW101M10
	C7417, C7423, C7427, C7438	CEVW101M16
	C7445, C7446, C7458, C7460, C7479	CEVW101M16
	C7612, C7619, C7638, C7652	CEVW101M16
	C7656-C7659, C7718, C7719, C7731	CEVW101M16
	C7734, C7745	CEVW101M16
	C7738, C7740, C7751, C7752	CEVW220M35
	C7714	CEVW470M16
	C7634, C7641, C7645, C7653	CEVWNP100M25
	C7705, C7709, C7717, C7721, C7722	CEVWNP470M10
	C7730	CEVWNP470M10

Mark	No. Description	Part No.
	C7404	CKSRYB102K50
	C7436, C7442, C7456, C7457, C7470	CKSRYB103K50
	C7473, C7489, C7492, C7611	CKSRYB103K50
	C7403, C7406, C7408, C7411, C7412	CKSRYB104K16
	C7414, C7415, C7418, C7420, C7422	CKSRYB104K16
	C7424-C7426, C7430, C7439-C7441	CKSRYB104K16
	C7444, C7447, C7451, C7455, C7459	CKSRYB104K16
	C7461, C7463, C7464, C7469, C7480	CKSRYB104K16
	C7483, C7484, C7488, C7613	CKSRYB104K16
	C7615, C7616, C7620-C7623	CKSRYB104K16
	C7626, C7627, C7630, C7632, C7633	CKSRYB104K16
	C7637, C7639, C7643, C7648, C7649	CKSRYB104K16
	C7651, C7660, C7661, C7703, C7704	CKSRYB104K16
	C7711-C7713, C7715, C7716, C7720	CKSRYB104K16
	C7725, C7728, C7729, C7732, C7733	CKSRYB104K16
	C7735, C7736, C7742, C7744, C7747	CKSRYB104K16
	C7749, C7755, C7757, C7803, C7807	CKSRYB104K16
	C7809, C7810, C7812, C7815, C7816	CKSRYB104K16
	C7831	CKSRYB104K16
	C7401, C7416, C7434, C7435, C7448	CKSRYB105K6R3
	C7476, C7481, C7617, C7628, C7806	CKSRYB105K6R3
	C7808, C7813, C7818	CKSRYB105K6R3
	C7450, C7453, C7454, C7467, C7468	CSZSR100M16
	C7486, C7487	CSZSR100M16

RESISTORS

Mark	No. Description	Part No.
	R7706, R7724	RN1/16SE1602D
	R7707, R7725	RN1/16SE3302D
	R7479	RS1/16S1001F
	R7444, R7448, R7484, R7506, R7550	RS1/16S1801F
	R7449, R7450, R7485, R7486	RS1/16S2201F
	R7507, R7508, R7551, R7552	RS1/16S2201F
	R7446, R7457, R7459, R7460, R7480	RS1/16S4700F
	R7492, R7493, R7518, R7519	RS1/16S4700F
	R7557, R7558	RS1/16S4700F
	R7451, R7487, R7509, R7553	RS1/16S5600F
	R7431, R7470, R7500, R7537	RS1/16S5601F
	R7466, R7467, R7476, R7478	RS1/16S7500F
	R7502, R7503, R7533, R7534	RS1/16S7500F
	R7419, R7420, R7434, R7524, R7525	RS1/16S75R0F
	R7530	RS1/16S75R0F
	Other Resistors	RS1/16S###J

OTHERS

Mark	No. Description	Part No.
	CN7402 PH CONNECTOR	AKM1277
	CN7613 PH CONNECTOR	AKM1278
	JA7601 2P PIN JACK	BKB1017
	CN7801, CN7802 CONNECTOR	CKS4361
	JA7402 BNC CONNECTOR	DKN1267
	JA7403 BNC CONNECTOR	DKN1268
	JA7961 CANNON CONNECTOR	DKN1269
	CN7701 8P CONNECTOR	S8B-ZR-SM3A
	7401 PCB BINDER	VEF1040
	JA7404 DV-TERMINAL	VKB1186
	JA7401 4P MINIDINSOCKET	VKN1072
	CN7611 20PCONNECTOR	VKN1589
	KN7401, KN7402 WRAPPING TERMINAL	VNF1084
	KN7961 SCREW PLATE	VNE1948

Mark	No. Description	Part No.

B JKDB ASSY

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC7901	DS8922M
	IC7941	LM1881M
	IC7921	LM361M
	IC7923	NJM4558M
	D7923, D7924	1SS355
	D7925-D7927	SML-310DT
	D7901-D7908, D7921, D7922	UDZS5R1(B)

COILS AND FILTERS

Mark	No. Description	Part No.
	F7905, F7921-F7923, F7941	DTF1069
	L7901-L7904, L7906-L7909	VTL1079

SWITCHES AND RELAYS

Mark	No. Description	Part No.
	S7941	VSH1009

CAPACITORS

Mark	No. Description	Part No.
	C7927, C7928	CCSRCH221J50
	C7945	CCSRCH471J50
	C7922, C7929	CEVW101M16
	C7926, C7943	CEVW470M16
	C7901, C7921, C7924, C7925	CKSRYB104K16
	C7941, C7942, C7944	CKSRYB104K16

RESISTORS

Mark	No. Description	Part No.
	R7901, R7907, R7909	RAB4C220J
	R7943	RS1/16S75R0F
	Other Resistors	RS1/16S###J

OTHERS

Mark	No. Description	Part No.
	JA7941 BNC CONNECTOR	DKN1268
	CN7901 D-SUB CONNECTOR	DKN1271
	CN7902 11P CONNECTOR	S11B-ZR-SM3A
	CN7941 ZR CONNECTOR	S2B-ZR-SM3A
	CN7903 6P CONNECTOR	S6B-ZR-SM3A

C 422IB ASSY

SEMICONDUCTORS

Mark	No. Description	Part No.
	D7951-D7958	UDZS5R1(B)

OTHERS

Mark	No. Description	Part No.
	CN7951 D-SUB CONNECTOR	DKN1271
	CN7952 6P CONNECTOR	S6B-ZR-SM3A

D HPVB ASSY

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC661	BH3544F
	Q661	RN4982
	D661	SML-310DT

COILS AND FILTERS

Mark	No. Description	Part No.
	L661-L664	QTL1015

CAPACITORS

Mark	No. Description	Part No.
	C670, C671	CCSRCH101J50
	C663, C668, C677	CEVW101M16
	C675	CEVW470M16
	C664, C676	CKSRYB104K16
	C666, C673, C674	CKSRYB105K6R3

Mark	No. Description	Part No.

RESISTORS

Mark	No. Description	Part No.
	VR661	DCS1063
	Other Resistors	RS1/16S###J

OTHERS

Mark	No. Description	Part No.
	CN661 8P CONNECTOR	S8B-ZR-SM3A
	JA661 HEADPHONE JACK	VKN1802

E JKOB ASSY

SEMICONDUCTORS

Mark	No. Description	Part No.
	D7851-D7868	UDZS5R1(B)

COILS AND FILTERS

Mark	No. Description	Part No.
	L7981-L7984	VTL1089

CAPACITORS

Mark	No. Description	Part No.
	C7857, C7860, C7865, C7866, C7869	CCSRCH101J50
	C7874, C7877, C7878, C7881	CCSRCH220J50
	C7851, C7852, C7873	CCSRCH221J50
	C7856	CCSRCH390J50
	C7981-C7984	CEANP471M10
	C7855, C7859, C7861, C7864, C7868	CEAT102M10
	C7872	CEVW101M10
	C7853, C7854, C7858, C7862, C7863	CKSRYB104K16
	C7867, C7870	CKSRYB104K16

RESISTORS

Mark	No. Description	Part No.
	R7853, R7855-R7859	RS1/16S68R0F
	R7860	RS1/16S75R0F
	Other Resistors	RS1/16S###J

OTHERS

Mark	No. Description	Part No.
	JA7851 2P PIN JACK	BKB1017
	CN7851 CONNECTOR	CKS4361
	JA7853 BN CCONNECTOR	DKN1267
	JA7854 BN CCONNECTOR	DKN1268
	JA7981 CANNON CONNECTOR	DKN1270
	JA7855 1P PIN JACK	VKB1159
	JA7852 4P MINI DIN SOCKET	VKN1072
	KN7981 SCREW PLATE	VNE1948

F DECB ASSY

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC1711	ADV7172KST
⚠	IC1101	BA033FP
	IC1411	BU2288FV
	IC1412	CY2081SL-655
	IC1211	HD6417709AF100B
⚠	IC1351	ICP-S2.3
	IC1512	K4S641632H-TC75
	IC1611	K4S643232H-TC60
	IC1513	M65776AFP
	IC1413	NJM2100M
	IC1751	PCM1716E
	IC1612	PD6454D8
⚠	IC1111	PQ025EZ01ZP
⚠	IC1121	PQ070XZ02ZP
	IC1391	PST9142N

Mark	No. Description	Part No.
	IC1416-IC1418, IC1851-IC1853	SN74AHC2G53HDCT
	IC1153, IC1415, IC1511, IC1651-IC1653	TC74LCX541FT
	IC1172	TC74VHC04FT
	IC1171	TC74VHC125FT
	IC1392	TC74VHC14FT
	IC1151, IC1414	TC7WU04FU
	IC1311	XC2S100-5PQ208C
	Q1811-Q1819	2SA1576A
	Q1752	2SC4081
	Q1211	2SK2033
	Q1851	DTA124EUA
	Q1411, Q1412, Q1471, Q1751, Q1852	DTC124EUA
	Q1391	UMH1N
	D1391, D1751	1SS355
	D1411	1SV323
	D1137	SML-310DT
	D1181, D1182, D1185, D1186, D1311	SML-310YT

COILS AND FILTERS

Mark	No. Description	Part No.
	F1152, F1153, F1412, F1651-F1653	DTF1069
	F1851	DTF1069
	F1751, F1755, F1756	VTF1096
	L1151	VTL1084
	L1411, L1462, L1781	VTL1157

CAPACITORS

Mark	No. Description	Part No.
	C1233	CCSRCH180J50
	C1234	CCSRCH220J50
	C1212, C1213	CCSRCH471J50
	C1415	CCSRCH560J50
	C1426	CCSRCH5R0C50
	C1102, C1111	CEVW100M16
	C1462	CEVW101M10
	C1121, C1414, C1417, C1711, C1717	CEVW101M6R3
	C1752, C1759-C1761, C1782	CEVW101M6R3
	C1393	CEVW1R0M50
	C1104, C1113	CEVW220M6R3
	C1123, C1216, C1333, C1335, C1516	CEVW221M4
	C1523, C1615, C1622	CEVW221M4
	C1101, C1115, C1154, C1171, C1424	CKSRYB103K50
	C1427, C1651-C1653	CKSRYB103K50
	C1153, C1172-C1174, C1183, C1211	CKSRYB104K16
	C1214, C1215, C1218-C1232	CKSRYB104K16
	C1311-C1332, C1337-C1342	CKSRYB104K16
	C1353-C1356, C1363-C1368	CKSRYB104K16
	C1375-C1377, C1391, C1392, C1413	CKSRYB104K16
	C1416, C1421-C1423, C1461, C1463	CKSRYB104K16
	C1512, C1513, C1518-C1522	CKSRYB104K16
	C1524-C1529, C1533-C1539	CKSRYB104K16
	C1541-C1551, C1611-C1614	CKSRYB104K16
	C1617-C1621, C1624, C1713, C1716	CKSRYB104K16
	C1718-C1725, C1751, C1753	CKSRYB104K16
	C1755-C1758, C1762, C1763, C1781	CKSRYB104K16
	C1783, C1851-C1853	CKSRYB104K16
	C1412, C1418, C1419, C1474, C1511	CKSRYB105K6R3
	C1515, C1530-C1532	CKSRYB105K6R3
	C1420	CKSRYB332K50
	C1103, C1112	CKSRYB334K10
	C1411	CKSRYB472K50
	C1754, C1764	CKSRYF105Z10

Mark	No. Description	Part No.
	RESISTORS	
	R711-R714, R732, R734	RAB4C103J
	R745, R746, R755, R756	RAB4C103J
	R715-R731, R733, R735-R744	RAB4C220J
	R1123	RN1/16SE1001D
	R1439	RN1/16SE1202D
	R1420	RN1/16SE3000D
	R1438	RN1/16SE4701D
	R1411	RN1/16SE6800D
	R1824, R1828	RS1/16S1000F
	R1820	RS1/16S1500F
	R1719	RS1/16S1502F
	R1513	RS1/16S1801F
	R1829, R1833, R1835	RS1/16S2200F
	R1512	RS1/16S3001F
	R1520	RS1/16S3301F
	R1125	RS1/16S3900F
	R1724, R1734	RS1/16S4701F
	R1720	RS1/16S4702F
	R1813, R1816, R1821	RS1/16S62R0F
	R1723, R1732	RS1/16S6800F
	R1721	RS1/16S6801F
	R1811, R1815, R1818	RS1/16S82R0F
	R1522	RS1/8S4R7J
	Other Resistors	RS1/16S###J
	OTHERS	
	X1212 CRYSTAL RESONATOR	BSS1091
	CN1811 CONNECTOR	CKS4361
	CN1651 30P FLEXIBLE CONNECTOR	DKN1192
	X1151 CHIP CERALOCK (40MHz)	DSS1101
	X1411 CRYSTAL RESONATOR	DSS1117
	CN1171 CONNECTOR 11P	S11B-ZR-SM3A
	CN1471 ZR CONNECTOR	S2B-ZR-SM3A
	CN1174 CONNECTOR 5P	S5B-ZR-SM3A
	CN1172 CONNECTOR 6P	S6B-ZR-SM3A
	CN1173 CONNECTOR 7P	S7B-ZR-SM3A
	CN1183 7P FFC CONNECTOR	VKN1299
	KN1811, KN1812	VNF1109

G PCIB ASSY

Mark	No. Description	Part No.
	SEMICONDUCTORS	
⚠	IC2302	BA033FP
	IC2405	HD6417709AF100B
	IC2003	HY57V641620HGT-7
	IC2404	K4S643232H-TC60
	IC2406	PD6453D8
	IC2001	PE5219A
⚠	IC2305	PQ025EZ01ZP
⚠	IC2303	PQ070XZ02ZP
	IC2306	PST9142N
	IC2110	TC74LCX16245AFT
	IC2002, IC2103-IC2108, IC2308, IC2403	TC74LCX541FT
	IC2109	TC74LCX574FT
	IC2407	TC74VHC04FT
	IC2401	TC74VHC125FT
	IC2307	TC74VHC14FT
	IC2304	TC7SH08FU
	IC2102	TC7WT126FU
	IC2402	TC7WU04FU
	IC2309	XC2S100-5PQ208C
	Q2301	UMH1N
	D2303	1SS355
	D2101, D2102, D2301	SML-310DT
	D2304-D2308	SML-310YT
⚠	TH2301, TH2302	MINISMDC020
⚠	TH2351	MINISMDM160
	COILS AND FILTERS	
	F2003-F2006, F2306-F2308	DTF1070
	F2401, F2402	DTF1070
	F2301, F2302	VTH1040
	L2101, L2403-L2409	VTL1079
	L2001, L2002	VTL1084
	CAPACITORS	
	C2180	CCSRCH101J50
	C2447, C2448	CCSRCH180J50
	C2412, C2413	CCSRCH471J50
	C2301, C2303, C2304, C2306, C2307	CEVW100M16
	C2309, C2311, C2313, C2314	CEVW100M16
	C2317-C2319, C2333, C2337, C2416	CEVW100M16
	C2418	CEVW100M16
	C2323	CEVW1R0M50
	C2001-C2003, C2026	CEVW221M4
	C2308, C2310, C2315, C2320, C2322	CKSRYB103K50
	C2324-C2332, C2336, C2338-C2348	CKSRYB103K50
	C2350, C2351, C2353-C2373	CKSRYB103K50
	C2401-C2405, C2408, C2409, C2411	CKSRYB103K50
	C2414, C2415, C2417, C2419-C2430	CKSRYB103K50
	C2432-C2446	CKSRYB103K50
	C2004-C2022, C2024, C2025	CKSRYB104K16
	C2027-C2031, C2101, C2102, C2107	CKSRYB104K16
	C2122, C2143, C2146, C2156, C2168	CKSRYB104K16
	C2190, C2194, C2321	CKSRYB104K16
	C2117	CKSRYB105K6R3
	C2305, C2312, C2316	CKSRYB224K10
	RESISTORS	
	R2008-R2010, R2013, R2023-R2025	RAB4C0R0J
	R2027, R2029, R2031	RAB4C0R0J
	R2002, R2014-R2020, R2050, R2051	RAB4C103J
	R2409-R2416	RAB4C103J
	R2003-R2007, R2012, R2021, R2028	RAB4C220J
	R2030, R2037, R2042, R2043	RAB4C220J
	R2064-R2068, R2070-R2073	RAB4C220J
	R2075-R2078, R2478-R2480, R2484	RAB4C220J
	R2486, R2487, R2503-R2510	RAB4C220J
	R2316	RN1/16SE1001D
	R2313	RS1/16S3900F
	Other Resistors	RS1/16S###J
	OTHERS	
	CN2403 CONNECTOR 11P	B11B-ZR-SM3
	CN2404 CONNECTOR 5P	B5B-ZR-SM3
	CN2402 CONNECTOR 6P	B6B-ZR-SM3
	CN2401 CONNECTOR 7P	B7B-ZR-SM3
	X2402 CRYSTAL RESONATOR	BSS1091

A B C D E F

Mark	No. Description	Part No.
	X2401 CHIPCERA LOCK(40MHz)	DSS1101
	CN2102 CONNECTOR 11P	S11B-ZR-SM3A
	CN2101 4P CONNECTOR	S4B-ZR-SM3A
	CN2405 7P FFC CONNECTOR	VKN1299
	CN2103, CN2104 50P CONNECTOR	VKN1590
	KN2301, KN2302 EARTH METAL	VNF1109
	X2001 CRYSTAL RESONATOR	VSS1138

HAVIB ASSY

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC3803	BA4558F-HT
	IC6004	CS8420-CSZD1
	IC7004	DVXCEL-BA1
⚠	IC3205	ICP-S2.3
	IC5001	M2V64S50DTP-6
	IC3501	NJM13404V
	IC3301	NJM2115M
⚠	IC3202	NJM78M05DL1A
⚠	IC3201, IC3203	NJM78M09DL1A
⚠	IC3204	NJM79M09DL1A
	IC3802	PCM1800-1
	IC3502	PD0272A1
	IC5002	PD6342A
	IC6003	PE7004A
	IC3309	PLL1700E
⚠	IC7501	PQ070XZ02ZP
	IC3302, IC3306	SN74AHC2G53HDCT
	IC3004	TC74LCX16245AFT
	IC3002, IC3003, IC3006, IC3007, IC3304	TC74LCX541FT
	IC3308, IC6501, IC6502, IC7001	TC74LCX541FT
	IC6005	TC74LCX74FT
	IC3005	TC74VHCT541AFT
	IC3310	TC74VHCU04FT
	IC3307	TC7SH04F
	IC5003	TC7SH08FU
	IC3303, IC3305	TC7SLU04F
	IC3801	TC9412AF
	IC4002	TSB41AB2PAP
	IC4001	TSB42AB4PDT
	IC3804	UPC4570G2
	IC6002	UPD61003
	IC7002, IC7003	W986432DH-7
	IC5004	XC2S50-5PQ208C
	D3501-D3504, D3801-D3804	1SS355
	D4001-D4008	1SS355
	D3301	1SV323
	D7002, D7003	EP10QY03
	D3201-D3204	SML-310DT
	D5001-D5005	SML-310YT

COILS AND FILTERS

Mark	No. Description	Part No.
	F7502-F7505	CTF1558
	F3301-F3305, F3307-F3310, F3803	DTF1069
	F507	DTF1069
	F3201-F3204, F3208-F3210, F501	DTF1070
	F706, F707	DTF1070

Mark	No. Description	Part No.
	L3501, L3502	LCYA100J2520
	L3309	LCYA1R2J2520
	F3205-F3207, F4002, F4003	VTF1171
	F5002-F5005, F7002-F7004	VTF1171
	F7006, F7007, F7501	VTF1171
	L3312	VTL1078
	L3305-L3308, L3313, L3314	VTL1079
	L3319-L3321, L3323-L3328, L7008	VTL1079

CAPACITORS

Mark	No. Description	Part No.
	C4026, C6037, C6042	CCSRCH102J50
	C4001, C4002	CCSRCH120J50
	C4025	CCSRCH221J50
	C3312, C7050-C7067	CCSRCH470J50
	C3810, C3811	CCSRCH471J50
	C3315	CCSRCK2R0C50
	C3204, C3210, C3212	CEHVKW470M16
	C3207, C3213-C3215, C3224, C3225	CEVW101M16
	C3801, C3804, C3815, C3818	CEVW101M16
	C3309, C3310, C3320, C3509-C3511	CEVW101M6R3
	C3522, C3526, C3533, C4012	CEVW101M6R3
	C6039, C6040	CEVW101M6R3
	C3317, C3507, C5010, C5011	CEVW221M4
	C5117, C5118, C6002, C6010, C6033	CEVW221M4
	C7005, C7007, C7009, C7021	CEVW221M4
	C7024, C7025, C7503, C7505	CEVW221M4
	C3805-C3809, C3813, C3816, C3817	CEVW330M25
	C3513, C3534, C7012, C7013, C7018	CKSRYB102K50
	C7020, C7041	CKSRYB102K50
	C3311, C3529, C6043, C6046, C7014	CKSRYB103K50
	C7016, C7019, C7040, C7043, C7504	CKSRYB103K50
	C3101-C3106, C3201-C3203	CKSRYB104K16
	C3205, C3206, C3208, C3209, C3211	CKSRYB104K16
	C3216-C3222, C3226, C3227	CKSRYB104K16
	C3301-C3308, C3314, C3316	CKSRYB104K16
	C3318, C3319, C3321, C3322	CKSRYB104K16
	C3502-C3506, C3508, C3512	CKSRYB104K16
	C3514-C3521, C3523-C3525	CKSRYB104K16
	C3527, C3528, C3530-C3532	CKSRYB104K16
	C3535-C3537, C3539-C3542, C3544	CKSRYB104K16
	C3547, C3549, C3550, C3802, C3803	CKSRYB104K16
	C3819, C4003-C4005, C4007	CKSRYB104K16
	C4009-C4011, C4013, C4015-C4017	CKSRYB104K16
	C4019-C4024, C4027, C4029-C4031	CKSRYB104K16
	C5002-C5009, C5012-C5023	CKSRYB104K16
	C5026-C5034, C5036-C5054	CKSRYB104K16
	C5089-C5116, C6001, C6003-C6009	CKSRYB104K16
	C6011-C6032, C6034-C6036, C6038	CKSRYB104K16
	C6041, C6501, C6502, C7001-C7004	CKSRYB104K16
	C7006, C7008, C7010, C7011, C7015	CKSRYB104K16
	C7017, C7022, C7023, C7026-C7039	CKSRYB104K16
	C7042, C7044-C7049, C7068-C7073	CKSRYB104K16
	C7501	CKSRYB104K16
	C3538, C3545, C3548	CKSRYB105K6R3
	C6045	CKSRYB472K50
	C4014, C4018	CKSRYF105Z10
	C6044	CKSRYF224Z16
	VC3301 (20p)	VCM1008

RESISTORS

Mark	No. Description	Part No.
	R3526, R3534, R3538, R3542	RAB4C0R0J
	R3555-R3557, R5027, R5035	RAB4C0R0J
	R4019, R4020, R4027, R4028	RAB4C102J
	R3504, R3505, R3540, R3546	RAB4C103J
	R3548-R3551, R4010, R4056	RAB4C103J
	R4067, R4068, R6030, R6036, R6040	RAB4C103J
	R6044-R6046, R7091-R7095	RAB4C103J
	R4005-R4009, R4011, R4021, R4022	RAB4C220J
	R4030-R4032, R4039, R4047	RAB4C220J
	R4057, R4058, R4065, R4069-R4074	RAB4C220J
	R5002, R5003, R5005, R5006, R5010	RAB4C220J
	R5015-R5017, R5021-R5025, R5031	RAB4C220J
	R5034, R5036-R5041, R5043-R5045	RAB4C220J
	R5047-R5054, R5056, R5057	RAB4C220J
	R5076-R5079, R5082, R5084, R5088	RAB4C220J
	R5091-R5094, R5770-R5774	RAB4C220J
	R5776-R5782, R6001-R6007	RAB4C220J
	R6022, R6023, R6028, R6029	RAB4C220J
	R6032, R6033, R6037, R6038	RAB4C220J
	R6041, R6042, R6048, R6049, R6063	RAB4C220J
	R6070-R6072, R6074, R6075	RAB4C220J
	R6525, R6526, R7003-R7006, R7044	RAB4C220J
	R7056, R7063, R7068	RAB4C220J
	R4033, R4034, R4042, R4043	RN1/16SC56R0D
	R3306, R3331, R3335, R3336, R3340	RS1/10S0R0J
	R3503, R3506, R3801, R3807	RS1/10S0R0J
	R3814, R3815, R4012, R502	RS1/10S0R0J
	R505, R506, R5101, R5102, R6008	RS1/10S0R0J
	R6013, R6014, R6076, R6077, R7017	RS1/10S0R0J
	R7096-R7098, R7501	RS1/10S0R0J
	R7054	RS1/10S100J
	R7053	RS1/10S150J
	R7507	RS1/16S1001D
	R3532	RS1/16S1001F
	R3528	RS1/16S1002F
	R3501	RS1/16S1003F
	R3529	RS1/16S1301F
	R3524	RS1/16S1802F
	R3531	RS1/16S3601F
	R7504	RS1/16S5600F
	R4023	RS1/16S6341D
	Other Resistors	RS1/16S###J

OTHERS

Mark	No. Description	Part No.
	CN3203, CN3204 CONNECTOR 4P	AKM1275
	CN4001 CONNECTOR 4P	B4B-ZR-SM3
	CN3202 CONNECTOR	AKM1293
	CN3201 PH CONNECTOR 14P	AKM1300
	CN3301 CONNECTOR 4P	B4B-ZR-SM3
	CN3001, CN3002 CONNECTOR	CKS3930
	CN5501, CN5503, CN6002 CONNECTOR	CKS4361
	CN5502 26P CONNECTOR	VKN1566
	CN3501 CONNECTOR 20P	VKN1589
	KN3001-KN3007	VNF1109
	X3301 CRYSTAL RESONATOR (27.000MHz)	VSS1146
	X4001 CRYSTAL RESONATOR (24.576MHz)	VSS1151
	X7001 CRYSTAL RESONATOR (27.500MHz)	VSS1153

I PWRB(POLY) ASSY

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC401, IC451	AN8015SH
	IC301	BA9743AFV
	IC101	BP5232-25A
	IC201	BP5233-33A
⚠	IC4-IC6	ICP-N10
⚠	IC8	ICP-S2.3
	IC3	TC74HC05AF
	Q101, Q201	2SA1037K
	Q14-Q16, Q21, Q26, Q28	2SA1162
	Q5, Q9	2SA1162
	Q301, Q302, Q401, Q402, Q451	2SA1900
	Q18-Q20	2SD2114K
	Q24	DTA124EUA
	Q1, Q12, Q13, Q2	DTC124EUA
	Q22, Q23, Q25, Q29	DTC124EUA
	Q3, Q4, Q6-Q8	DTC124EUA
	Q10, Q17, Q27, Q30	UMH1N
	D1, D14-D18, D2	1SS355
	D20, D21, D23, D3-D8	1SS355
	D302, D402, D403, D452, D453	RB400D
	D10-D13, D19, D9	SML-310DT
	D24, D25	SML-310YT
⚠	TH1	MINISMDM160

COILS AND FILTERS

Mark	No. Description	Part No.
	L303	BTH1119
	L301, L401	DTH1191
	L451	DTH1192

SWITCHES AND RELAYS

Mark	No. Description	Part No.
	RY1, RY2	BSR1014

CAPACITORS

Mark	No. Description	Part No.
	C309, C407, C455	CCSRCH221J50
	C101, C201, C90	CEAT102M16
	C305, C306	CEAT470M35
	C103, C203	CEAT471M10
	C33, C35, C37	CEAT471M35
	C21-C23, C308, C403, C453	CEVW100M35
	C10, C12, C2, C4	CEVW100M50
	C457, C458, C6, C8	CEVW100M50
	C312-C314	CEVW101M10
	C405	CEVW101M16
	C410	CEVW330M35
	C401, C451	CKSRYB102K50
	C1, C11, C13-C16	CKSRYB103K50
	C18-C20, C24, C29, C3	CKSRYB103K50
	C32, C34, C36, C38-C45	CKSRYB103K50
	C5, C7, C9	CKSRYB103K50
	C315	CKSRYB104K16
	C102, C202, C307, C310, C402	CKSRYF104Z25
	C452	CKSRYF104Z25
	C301, C304, C408, C456	CKSRYF105Z10
	C404, C454	CSZS100M10
	C311	CSZS330M6R3

RESISTORS

Mark No. Description	Part No.
R409, R459	RN1/16SE1203D
R312, R318	RN1/16SE1502D
R112	RN1/16SE2402D
R212, R421	RN1/16SE2702D
R307	RN1/16SE3302D
R401, R453	RN1/16SE3601D
R311	RN1/16SE3902D
R464	RN1/16SE4702D
R319	RN1/16SE5102D
R306	RN1/16SE6202D
R403, R451	RN1/16SE8201D
R404, R455	RN1/16SE9101D
R101, R108, R201, R208	RS1/10S0R0J
R302, R303, R317, R408, R411	RS1/10S0R0J
R420, R452, R469, R85-R87	RS1/10S0R0J
R69, R70, R73, R74	RS1/10S270J
R77, R78	RS1/10S270J
R405, R456	RS1/10S680J
R308, R309	RS1/10S752J
VR201 (1k)	VCP1125
VR101 (2.2k)	VCP1127
Other Resistors	RS1/16S###J

OTHERS

Mark No. Description	Part No.
CN3 PLUG 20-P	AKM1149
CN5 3P PH CONNECTOR	AKM1274
CN2 KRCONNECTOR 14P	B14B-PH-K-S
CN6 CONNECTOR 6P	B6B-ZR-SM3
CN1, CN4 FORAT XPSU CONNECTOR	DKN1272
CN9-CN11 PLUG (2P)	KM200SA2
KN1-KN3 WRAPPING TERMINAL	VNF1084

J FLKB(WYV/RB) ASSY

SEMICONDUCTORS

Mark No. Description	Part No.
IC501	PE5392B8
IC504	PST9142N
IC502, IC503	PT6315
IC505	RPM7140-H4
Q511	2SA1162
Q509	2SB1260
Q504, Q505	DTA124EUA
Q501, Q502, Q506-Q508	DTA143EUA
Q510	DTC124EUA
D501, D504, D511-D520	1SS355
D508-D510	SLR-343MC
D506	SPR-39MVWF(MN)
D502, D503, D505	UDZS6R2(B)

COILS AND FILTERS

Mark No. Description	Part No.
L501	QTL1015
F501	VTH1009

SWITCHES AND RELAYS

Mark No. Description	Part No.
S501-S507, S509	VSG1024

CAPACITORS

Mark No. Description	Part No.
C521-C523	CEVW101M16
C503, C511	CEVW101M6R3
C513, C517-C520	CKSRYB103K50
C501, C502, C504-C509, C512	CKSRYF104Z25
C514-C516	CKSRYF104Z25

RESISTORS

Mark No. Description	Part No.
All Resistors	RS1/16S###J

OTHERS

Mark No. Description	Part No.
CN502 CONNECTOR 6P	52492-0620
CN503 CONNECTOR 25P	52492-2520
CN504 CONNECTOR 3P	53025-0310
CN501 PLUG20P	BKM1070
V501, V502 FL TUBE	DAW1019
0 LED SPACER	DEC2592
CN505 9P CONNECTOR	VKN1947
X501 CHIP CERAMIC RESONATOR (5MHz)	VSS1102

K KEYB(WYV/RB) ASSY

SEMICONDUCTORS

Mark No. Description	Part No.
Q602, Q605, Q609, Q612	DTA124EUA
D603, D606, D608, D611	NSPW310BS-4113
D613	UDZS6R2(B)

SWITCHES AND RELAYS

Mark No. Description	Part No.
S601-S610	VSG1024

CAPACITORS

Mark No. Description	Part No.
C601, C602	CKSRYF104Z25

RESISTORS

Mark No. Description	Part No.
All Resistors	RS1/16S###J

OTHERS

Mark No. Description	Part No.
CN602 CONNECTOR 6P	52492-0620
CN601 CONNECTOR 25P	52492-2520
CN603 CONNECTOR	VKN1943

L DRV1B ASSY

SEMICONDUCTORS

Mark No. Description	Part No.
Q631-Q633	DTA143EUA
D631	SLR-343DC
D632	SPR-39MVWF(MN)

SWITCHES AND RELAYS

Mark No. Description	Part No.
S631	VSG1024

CAPACITORS

Mark No. Description	Part No.
C631	CKSRYF104Z25

RESISTORS

Mark No. Description	Part No.
All Resistors	RS1/16S###J

OTHERS

Mark No. Description	Part No.
CN631 CONNECTOR 6P	52492-0620
0 LED SPACER	DEC2592

Mark No. Description Part No.

M DRV2B ASSY

SEMICONDUCTORS

Q641-Q643	DTA143EUA
D641	SLR-343DC
D642	SPR-39MVWF(MN)

SWITCHES AND RELAYS

S641	VSG1024

CAPACITORS

C641	CKSRYF104Z25

RESISTORS

All Resistors	RS1/16S###J

OTHERS

CN641 CONNECTOR 6P	52492-0620
0 LED SPACER	DEC2592

N USBB ASSY

SEMICONDUCTORS

D681	SML-310DT

CAPACITORS

C684	CCSRCH102J50
C691	CEAT471M10
C681	CKSRYF104Z25

RESISTORS

R706, R707	RS1/10S0R0J
Other Resistors	RS1/16S###J

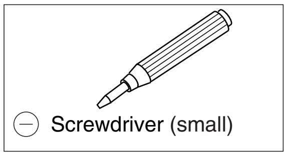
OTHERS

CN684 3P PH CONNECTOR	AKM1274
JA681 USBCONNECTOR	DKN1273
CN681 RF HEADER	DKN1274
KN682 WRAPPING TERMINAL	VNF1084

6. ADJUSTMENT

6.1 27MHz CLOCK ADJUSTMENT

Jigs and Measuring Instruments



⊖ Screwdriver (small)

Necessary Adjustment Points

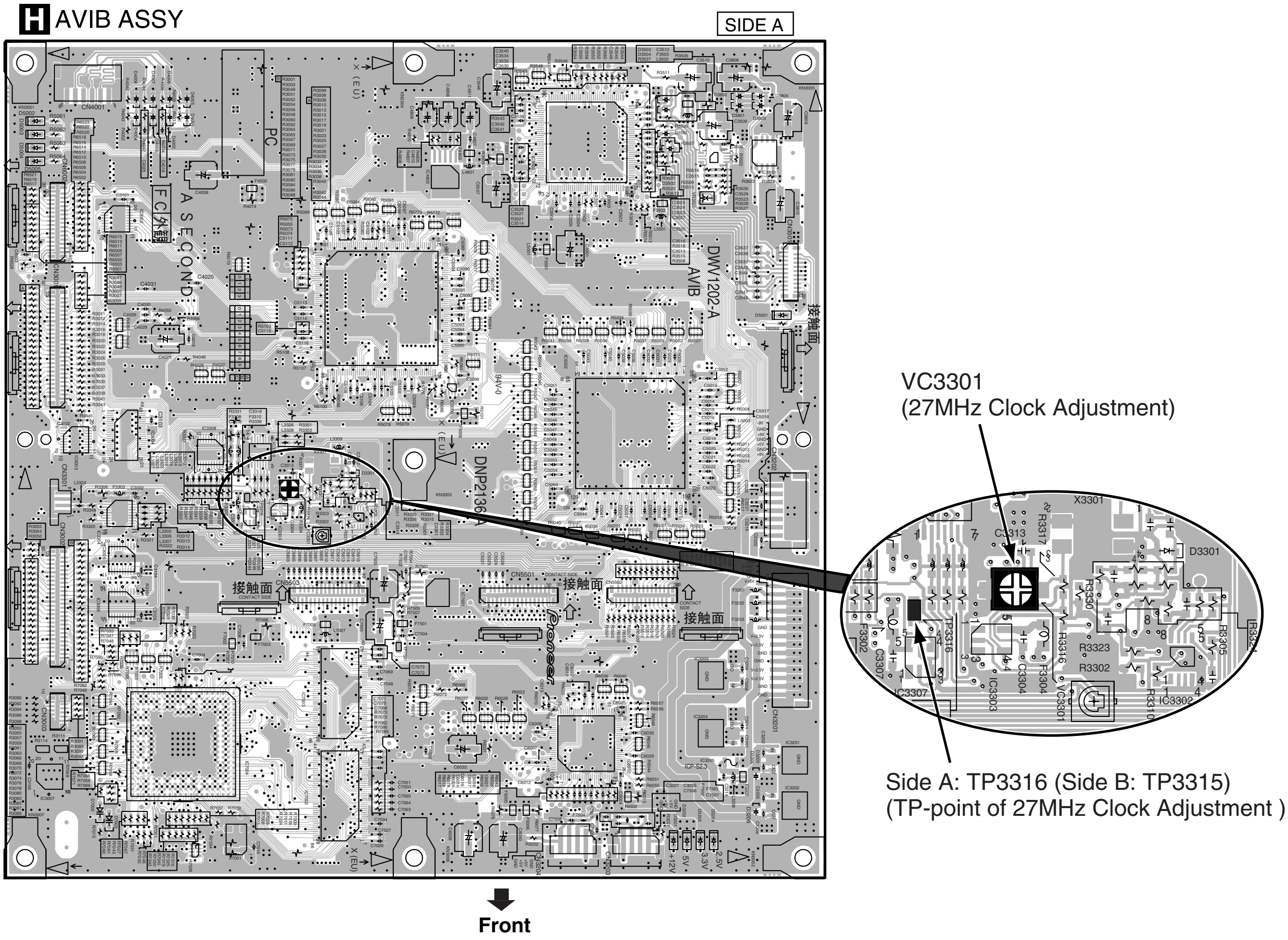
When

Exchange the AVIB Assy

Adjustment Points

VC3301
(27MHz Clock Adjustment)

Adjustment and Adjustment Points

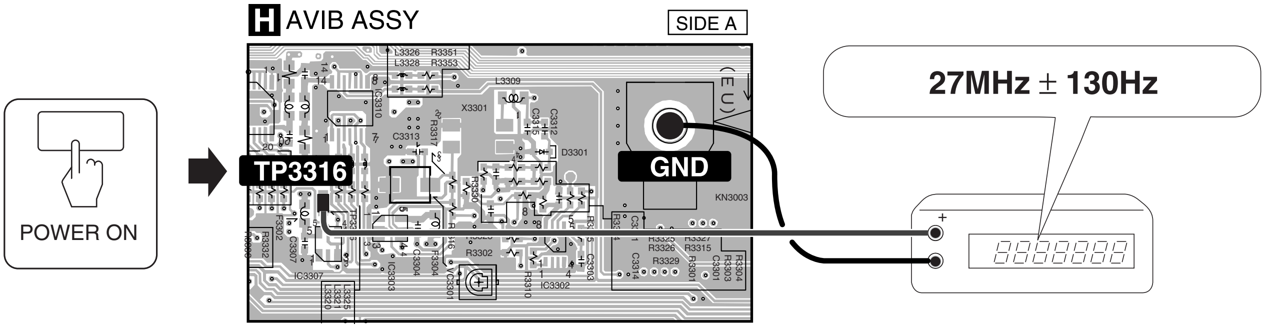

H AVIB ASSY
SIDE A
Front
X3301
C3313
R3317
D3301
R3330
TP3316
R3316
R3323
R3302
R3305
IC3307
IC3303
C3304
VC3301
R3310
IC3302
C3307
R3302

VC3301
(27MHz Clock Adjustment)

Side A: TP3316 (Side B: TP3315)
(TP-point of 27MHz Clock Adjustment)

How to Adjust

Adjustment conditions: While adjusting, there must be no video input connected.


POWER ON
H AVIB ASSY
SIDE A
TP3316
GND
KN3003
X3301
C3313
D3301
IC3307
IC3303
VC3301
IC3302

27MHz ± 130Hz

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 TESTMODE

1) How to enter Test mode

Using the GGF1067 remote control unit for service, press the [ESC] key then the [TEST] key to enter Test mode.
To quit Test mode, press the [ESC] key.

2) Description of various Test modes

2-1) FAN Test mode ([CX] - [0] to [7], [9])

After entering Test mode, press the [CX] key to enter FAN Test mode, then press a numeric key corresponding to a fan (fans) to be tested. The fans that can be tested are two fans in the front section and one fan in the rear section (a fan not used for the power-supply block).

[0]: All fans ON
[1]: All fans OFF
[2]: Left fan in the front section ON (the other fans retain their previous statuses.)
[3]: Left fan in the front section OFF (the other fans retain their previous statuses.)
[4]: Right fan in the front section ON (the other fans retain their previous statuses.)
[5]: Right fan in the front section OFF (the other fans retain their previous statuses.)
[6]: The fan in the rear section ON (the other fans retain their previous statuses.)
[7]: The fan at the rear section OFF (the other fans retain their previous statuses.)
[9]: Terminating FAN Test mode

2-2) LED/FL Test mode ([P.RUN] - [0] , [1] , [2])

After entering Test mode, press the [P.RUN] key to enter LED/FL Test mode:

[0]: Terminating LED/FL Test mode
[1]: Lighting all LEDs and FLs
[2]: Distinguishing all LEDs and FLs

2-3) Front-Panel-Button-Input Test mode ([TV/LDP])

After entering Test mode, press the [TV/LDP] key to enter Front-Panel-Button-Input Test mode then press all the buttons on the front panel one by one. The segments on the FL display are also extinguished one by one. When all buttons on the front panel are pressed, all segments except for the three on the right (two in a case of the 2-drive unit) are extinguished. When pressing the [STANDBY/ON] button, do NOT hold it pressed. Otherwise, the unit will be turned off. When pressed, some buttons may activate their corresponding operations.

[0]: Terminating Front-Panel-Button-Input Test mode

2-4) System-Information-Display Test mode ([REP.A] - [0] , [1] to [9])

After entering Test mode, press the [REP.A] key to display data on the hardware.

[0]: Terminating System-Information-Display Test mode

[1]: Main

CPU : The data (operation clock) on the mounted CPU can be checked.

Memory : The capacity of installed memory can be checked.

User Data : The total vacant capacity in the User Data area on the HDD can be checked. This vacant capacity is different from that displayed in normal operation.

PCI : Whether the Encoder board or Decoder board can be recognized by Linux or not can be checked. Being recognized does not mean that the boards are operable, but if not recognized, the boards may have some trouble.

[2]: USB (The connected USB devices will be displayed.)

IMPORTANT: During the USB Test, if a connected USB device, such as a mouse, is operated, the unit may hang up. Do NOT operate a connected USB device during the USB Test.

[3]: Network

IP Address/Netmask/MAC Address

If Network is set to ON on the Function menu, the IP address can be confirmed. If it is not set to ON, "!!!!!NO ID ADDRESS!!!!!" is displayed.

10 base/100 base

The connection conditions of the network (Ethernet) can be confirmed:

No Link: No connection to the network

10base T: The 10BaseT standard is used. (This indication is also displayed when the hub used does not support 100Base.)

100base Tx-FD: The 100Base standard is used.

[4]: HDD (IDE Primary-Master)

Data on the HDD. The SMART data are also confirmed.

[5]: HDD (IDE Primary-Slave)

Normally, no data are displayed.

[6]: DVD-R/RW Drive 1

The data on Drive 1 are displayed.

[7]: DVD-R/RW Drive 2

The data on Drive 2 are displayed if it is connected.

[8]: DVD-R/RW Drive 1 error log

The error log for Drive 1 is displayed.

[9]: DVD-R/RW Drive 2 error log

The error log for Drive 2 is displayed if it is connected.

2-5) Loopback Test mode ([REP.B] - [0] , [1] to [4])

After entering Test mode, press the [REP.B] key to enter Loopback Test mode for the RS-422A and RS-232C ports:

[0]: Terminating Loopback Test mode

[1]: Starting the RS-422A Loopback Test

[2]: Starting the RS-232C Loopback Test

[3]: Starting the RS-422A Loopback Test (but stopping when an error is generated)

[4]: Starting the RS-232C Loopback Test (but stopping when an error is generated)

2-6) Clearing data on cumulative power-on time, etc. ([A.MON] - [0] , [1] , [7], [8] , [9])

After entering Test mode, press the [A.MON] key to enter Test mode for clearing data on cumulative power-on time, etc.:

[0]: Clearing cumulative time for accessing to the HDD
[1]: Clearing cumulative power-on time of the product (Cumulative time of accessing the HDD is not cleared.)
[7]: Preparing to download the Setup file (obtainable via FTP for users)
[8]: Copying the Setup file (obtainable via FTP for users)
[9]: Copying the Log file (obtainable via FTP for users)

2-7) Error-Rate-Measurement Test mode ([PLAY])

After entering Test mode, insert a disc and press the [PLAY] key to enter Error-Rate-Measurement Test mode for Drive 1.
For measurement for Drive 2, press the [2] key. Measurement starts from address 0. To change the address for measurement, use [SCAN F] or [SCAN R].

[SCAN F]: Advancing the address for measurement by 0x10000
[SCAN R]: Setting the address for measurement back by 0x10000
[1]: Starting measurement for Drive 1
[2]: Starting measurement for Drive 2
[OP/ST]: Terminating measurement

2-8) Test mode with result (OK/NG) displayed ([0] , [1] to [7])

After entering Test mode, press one of the numeric keys. The corresponding test will be performed and the result (OK/NG) is displayed.
To proceed to the next test and clear the OK/NG result, press the [CLEAR] key.

[0]: Consecutive testing of [1] - [4] below (Testing stops when the test result becomes NG.)
[1]: RS-422A Loopback Test
  Perform this test after connecting the IN and OUT RS-422A ports with a cable.
[1]: RS-232C Loopback Test
  Perform this test after connecting the jig for loopback testing to the RS-232C port.
[3]: LAN Test
  Perform this test after connecting the unit to the valid network with a LAN cable.
[4]: USB Test
  Perform this test after connecting keyboards or mice to all the USB ports on the front and rear panels.
[5]: Error Rate Test (Drive 1)
  Perform this test after loading a disc into Drive 1.
[6]: Error Rate Test (Drive 2)
  Perform this test after loading a disc into Drive 2.
[7]: LTC display
  The LTC being input is displayed on the FL display. In this mode, OK/NG judgment is not performed.
[CLEAR]: (When entered after one of the above test) To clear the result display

Note: About error-rate measurement, see the note on it in "7.1.2 List of Codes in Test Mode."

2-9) How to copy the Setup file to another PRV-LX10

① On a PRV-LX10 (hereinafter referred to as the PRV-LX10(S)) whose Setup file is to be copied, execute the command for copying the Setup file in Test mode for clearing data on cumulative power-on time, etc. ([ESC]-[TEST]-[A.MON]-[8]). See "2-6 Clearing data on cumulative power-on time, etc.".
② With a PC that is connected with the PRV-LX10(S) through a network, log in on the FTP server as described in the instruction manual (User name: PRVUser, password: prv-lx1). Then copy the Setup file (system.xml) from the first-layer directory.
③ Connect the PRV-LX10 (hereinafter referred to as the PRV-LX10(D)) that will receive the copied Setup file with the PC used in Step 2 above, through a network. Then log in on the FTP server (User name: PRVUser, password: prv-lx1) in the same way as in Step 2. Move the Setup file copied in Step 2 to the first-layer directory of the FTP server.
④ Execute the command for preparing for downloading the Setup file in Test mode for clearing data on cumulative power-on time, etc. ([ESC]-[TEST]-[A.MON]-[7]). See "2-6 Clearing data on cumulative power-on time, etc.".
⑤ Turn off the power to the PRV-LX10(D).
⑥ Turn on the power to the PRV-LX10(D) again. The new Setup file will be applied.

7.1.2 TEST MODE CODE

With the aid of the GGF1067 remote control unit for service, Test mode is operated.

No.	Code Input			Operation/Usage	Remarks
1	[ESC]+[TEST]			TEST MODE	
2		[CX]		FAN TEST MODE	
3			[0]	All fans ON	
4			[1]	All fans OFF	
5			[2]	Left FAN ON	
6			[3]	Left FAN OFF	
7			[4]	Right FAN ON	
8			[5]	Right FAN OFF	
9			[6]	Rear FAN ON	
10			[7]	Rear FAN OFF	
11			[9]	Terminating	
12		[P.RUN]		LED/FL TEST	
13			[0]	All LEDs/FLs lit	
14			[1]	All LEDs/FLs extinguished	
15			[2]	Terminating	
16		[TV/LDP]		Starting Front-Panel-Button-Input Test mode	Each time a button on the front panel is pressed, one segment on the FL display is extinguished.
17			[0]	Terminating	
18		[STEREO]+[8]		Drive 1 Region display	
19		[STEREO]+[9]		Drive 2 Region display	Effective when an optional drive is mounted
20		[REP.A]		System information display	
21			[0]	Terminating	
22			[1]	Main system information display	Built-in CPU (operation clock), capacity of the installed memory devices, vacant HDD capacity for User Data, recognition of PCI Boards (Encoder/Decoder)
23			[2]	USB-related data display	Data on the connected devices
24			[3]	Network-related data display	When Network is set to ON: Confirmation of IP address/Netmask/MAC address display, connection conditions (No Link/10BaseT/100Base Tx-FD)
25			[4]	Primary Master Drive data display	HDD SMART data display
26			[5]	Primary Slave Drive data display	Normally, no drive connected
27			[6]	Secondary Master Drive data display	
28			[7]	Secondary Slave Drive data display	Effective when an optional drive is mounted
29			[8]	Drive 1 error log	
30			[9]	Drive 2 error log	Effective when an optional drive is mounted
31		[REP.B]		Loopback TEST	
32			[0]	Terminating	
33			[1]	RS-422A Loopback TEST	
34			[2]	RS-232C Loopback TEST	
35			[3]	RS-422A Loopback TEST (Error Stop)	
36			[4]	RS-232C Loopback TEST (Error Stop)	
37		[A.MON]		Power On Time Clear	
38			[0]	HDD Access Time	
39			[1]	Power On Time	
40			[7]	Preparing to download the Setup file	Obtainable via FTP for users
41			[8]	Copying the Setup file	Obtainable via FTP for users
42			[9]	Copying the Log file	Obtainable via FTP for users
43		[PLAY]		Error Rate TEST	
44			[SCAN F]	+0x10000	
45			[SCAN R]	-0x10000	
46			[1]	Starting measurement for Drive 1	
47			[2]	Starting measurement for Drive 2	
48			[OP/ST]	Terminating measurement	
49		[0]		External I/F TEST (NG STOP)	Consecutive testing from 1 to 4
50		[1]		RS-422A Loopback TEST	REMOTE IN-OUT connection
51		[2]		RS-232C Loopback TEST	TXD-RXD connection
52		[3]		LAN TEST	DHCP setting, obtaining an IP address

No.	Code Input		Operation/Usage	Remarks
53		[4]	USB TEST	USB devices must be connected to four ports. Do not operate the connected USB devices during the USB test. For example, if the connected mouse is operated during the USB test, the unit may hang up.
54		[5]	Error Rate TEST (Drive 1)	The error rate is measured at 0x30000 three times, and the average value is judged. The command must be input during playback stop. ROM: Th value 3.3x10E-3 R, RW: Th value 3.3x10E-3
55		[6]	Error Rate TEST (Drive 2)	Effective when an optional drive is mounted
56		[7]	LTC display	Input TC is displayed on the FL display
57		[CLEAR]	Terminating result display	
58		[ESC]	Canceling Test mode	
59	[ESC+[PAUSE]		Shortcut command	
60		[1]	V IN- Composite	
61		[2]	V IN-S	
62		[3]	V IN-Component (Beta)	
63		[4]	V IN-Component (SMPTE)	
64		[5]	V IN-DV	
65		[6]	V IN-SDI	Effective when an optional board is mounted
66		[7]	A IN-RCA	
67		[8]	A IN-XLR	
68		[9]	A IN-DV	
69		[0]	A IN-SDI	Effective when an optional board is mounted
70		[+10]	A IN-AES/EBU	Effective when an optional board is mounted
71		[TEST]	Target DRV - HDD	
72		[CX]	Target DRV - DVD 1	
73		[REP.A]	Target DRV - DVD 2	Effective when an optional board is mounted
74		[REP.B]	Target DRV - DVD 1 & 2	Effective when an optional board is mounted
75		[STEREO]	External Sync. OFF	Effective only during playback or recording stop
76		[P.RUN]	External Sync. NTSC	Effective only during playback or recording stop
77		[A.MON]	External Sync. PAL	Effective only during playback or recording stop
78		[SPEED-]	Progressive OFF	Effective only during playback or recording stop
79		[SPEED+]	Progressive ON	Effective only during playback or recording stop
80		[SIDE.A]	TC PORT - LTC	
81		[SIDE.B]	TC PORT - RS-422A	
82		[TV/LDP]	TC PORT - DV	
83		[SCAN.F]	DV OUT ON	
84		[SCAN.R]	DV OUT OFF	
85		[x3 FWD]	REC	
86		[x3 REV]	REC STOP	
87		[STEP F]	Initialize	
88		[STEP R]	Finalize	
89	[ESC]+[OPEN/STOP]		Open/Close	
90	[ESC+[DISP]		Display of data for debugging-Page 1: System data	
91		[DISP]	To next page	Page 1: DVD-playback-related data, FAN/PS-ON operation data, destination/region data (DECB/DRV1/DRV2), GUID data Page 2: DVD-playback-related data Page 3: Decoding-related data (DECB) Page 4: Encoding-related data (PCIB/AVIB) Page 5: Encoding-related data (APL) Page 6: Linux-related data

- How the [ESC] code is processed
  - When the [ESC] code is received, ESCAPE mode is entered, but in combination with the code(s) that follow(s), a specific meaning is added.
  - ESCAPE mode is canceled if another code is received after the [ESC] code.
  - If [ESC] codes are received continuously, ESCAPE mode is retained.
- For playback-related operations, use the remote control unit supplied with the main unit.
- The factory preset mode of the unit at power-on is Standby. To start up the unit, press the [STOP] button, then press the [STANDBY/ON] button while in Standby mode.
- If the error rate being measured is distinctly degraded because of scratches on the media or defective media, a command cannot be sent from the drive, and proper error-rate-measurement may not be performed. If an error rate is not displayed, or OK/NG is not displayed on the monitor, restart the PRV-LX10 (by resetting the drive) and perform the error-rate-measurement again.

7.1.3 LED SPECIFICATIONS

■ LED specifications

Assy	ST LED	Function		Operation while the LED is lit/remarks	Checker Chip	Monitor Point
PWRB(POLY) Assy (DWZ1129)	D9	HDD_IND	HDD access indicator	In the process of accessing the HDD	–	
	D10	V+5VSB	Confirming STB +5 V power supply	Outputting +5 VSB from ATX power supply		
	D11	V+5V	Confirming +5 V power supply	Outputting +5 V from ATX power supply		
	D12	V+3.3VD	Confirming +3.3 V power supply	Outputting +3.3 V from IC201		
	D13	V+2.5VD	Confirming +2.5 V power supply	Outputting +2.5 V from IC101		
	D19	V+5VSB_M	Confirming STB +5 V power supply for MB	Outputting +5 VSB from RY1		
	D24	FAN DET	Confirming fan operation	STB or normal operation (rotation) of fans A fan being stopped by the fan control signal is not detected. Without an optional drive: Monitoring the rear fan and the fan for Drive 1 With an optional drive: Monitoring the rear fan and the fans for Drives 1 and 2		
	D25	PS_ON	Confirming PS_ON signal from the MB output	STB, or MB output set to H When D25 is lit, D11/12/13 are not lit (ATX power output disabled) Sequences: 1. When the Power switch on the rear panel is turned ON, D10, D24, and D25 light. 2. When the STANDBY/ON button on the front panel is set to ON, D19 lights, D25 is extinguished, D11, D12, and D13 light, then USBB D681 lights.		
FLKB(WYV/RB) Assy	–				–	
KEYB(WYV/RB) Assy	–				–	
USBB Assy (DWZ1159)	D681	USB_PWR	Confirming the power supply to USBB	Outputting +5 V from PWRB RY2, supplying USB_PWR to USB terminals on the front panel	–	
DRV1B Assy (DWZ1160)	–				–	
DRV2B Assy (DWZ1161)	–				–	
JKIB Assy (DWZ1126)	D7619	V+9V	Confirming +9 V supply for video	Outputting +9 V from AVIB IC3201	–	
	D7620	V+9A	Confirming +9 V supply for audio	Outputting +9 V from AVIB IC3203		
	D7621	V-9A	Confirming -9 V supply for audio	Outputting -9 V from AVIB IC3204		
	D7622	V+5A	Confirming +5 V supply for video	Outputting +5 V from AVIB IC3202		
JKOB Assy (DWZ1127)	–				–	
HPVB Assy (DWZ1128)	D661	V+5HP	Confirming +5 V supply	Outputting +5 V from JKIB IC7711	–	
422IBAssy (DWZ1133)	–				–	
JKDB Assy (DWZ1134)	D7925	V+12_LTC	Confirming +12 V supply for LTC	Outputting +12 V from MB via PCIB	–	
	D7926	V-12_LTC	Confirming -12 V supply for LTC	Outputting -12 V from MB via PCIB		
	D7927	V+5D	Confirming +5 V supply	Outputting +5 V from MB via PCIB		

Assy	ST LED	Function		Operation while the LED is lit/remarks
PCIB Assy (DWP1080)	D2101	V-12V	Confirming PCI-12 V supply	Outputting -12 V from MB
	D2102	V+12V	Confirming PCI+12 V supply	Outputting +12 V from MB
	D2301	V+5M	Confirming PCI+5 V supply	Outputting +5 V from MB, normal operation of TH2351 (Poly switch)
	D2304	FPGA_ACTIVE	Confirming Xilinx operational status	Default: lit (Config. completed), during Master transmission: flashing
	D2305	PTD [0]	Confirming encoder operational status (0)	Error display on startup
	D2306	PTD [1]	Confirming encoder operational status (1)	
	D2307	PTD [2]	Confirming encoder operational status (2)	
	D2308	PTD [3]	Confirming encoder operational status (3)	

Device check	[3] [2] [1] [0]
No error	0000
PCIB Xilinx (IC2309)	0001
AVIB Xilinx (IC5004)	0010
reserved	0011
SDRAM (IC2404)	0100
Slalom (IC2001)	0101
Slalom SDRAM (IC2003)	0110
George (IC3502)	0111
Vaikilt (IC5002)	1000
Aprilia (IC6003)	1001
Celynx (IC4001)	1010

Notes:
- When encoding starts after the device check, the LED display changes to the encode debugging display.
- If errors are generated simultaneously for several devices, the error of the highest-priority device is displayed.

Assy	ST LED	Function		Operation while the LED is lit/remarks
DECB Assy (DWP1081)	D1137	V+SH3	Confirming +1.8V-supply for SH3	Outputting +1.8 V from IC1121
	D1181	PTD [0]	Confirming DECB operational status	During normal operation:
	D1182	PTD [1]		
	D1185	PTD [2]		
	D1186	PTD [3]		

During playback	Randomly lit
During stop	All LEDs extinguished

Error Status:

Failure in writing to flash	All LEDs lit
Xilinx configuration error	All LEDs flashing (at intervals of 1 sec)
SH SDRAM error	D1181 lights.
Video encoder Initialize error	D1182 lights.
AV1 initialize error	D1185 lights.
AV1 SDRAM error	D1186 lights.

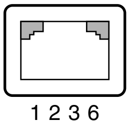
Assy	ST LED	Function		Operation while the LED is lit/remarks
DECB Assy (DWP1081)	D1311	FPGA ACTIVE	Confirming Xlinx operational status	Default: Lit (Config. completed), during transmission of SH3-AV1 data: flashing, then extinguished when Xilinx is written to the FIFO stack, and lit when the stack is empty (FIFO EMPTY).

Checker Chip	Monitor Point
TP2034	54MHz clock
TP2111	-12 V power supply
TP2112	+12 V power supply
TP2113	27MHz clock
TP2304	GND
TP2305	GND
TP2306	+2.5 V power supply
TP2307	+5 V power supply
TP2308	+5 V power supply (after passing TH point at the Poly switch)
TP2401	+3.3 V power supply
TP2402	+1.8 V power supply
TP2403	32.768kHz clock
TP2404	40-MHz clock
TP1101	GND
TP1102	GND
TP1103	GND
TP1104	GND
TP1111	GND
TP1112	GND
TP1113	GND
TP1114	GND
TP1152	40MHz
TP1211	1.8V
TP1212	3.3V
TP1311	2.5V
TP1312	3.3V
TP1413	27MHz
TP1414	16.9344MHz
TP1511	3.3V
TP1512	1.8V
TP1781	GND
TP1782	GND
TP1785	12V
TP1787	5V
TP1953	5V
TP1954	5V
TP1957	3.3V
TP1958	3.3V
TP1961	2.5V
TP1962	2.5V
TP1965	1.8V
TP1966	1.8V
TP1969	1.8V
TP1970	1.8V

Assy	ST LED	Function		Operation while the LED is lit/remarks
AVIB Assy (DWV1202)	D3201	V+12I	Confirming +12 V supply	Outputting +12 V from PWRB
	D3202	V+5DI	Confirming +5 V supply	Outputting +5 V from PWRB, normal operation of IC3205 (ICP-S2.3)
	D3203	V+3_3I	Confirming +3.3 V supply	Outputting +3.3 V from PWRB
	D3204	V+2_5I	Confirming +2.5 V supply	Outputting +2.5 V from PWRB
	D5001	ENC OK	Confirming Xlinx operational status	Default: lit (Config. completed), during ENC operation: flashing
	D5002	WMKD7	Confirming encoder operational status (3)	Error indications at startup are the same as for PCIB D2305-D2308.
	D5003	WMKD6	Confirming encoder operational status (2)	
	D5004	WMKD5	Confirming encoder operational status (1)	
	D5005	WMKD4	Confirming encoder operational status (0)	

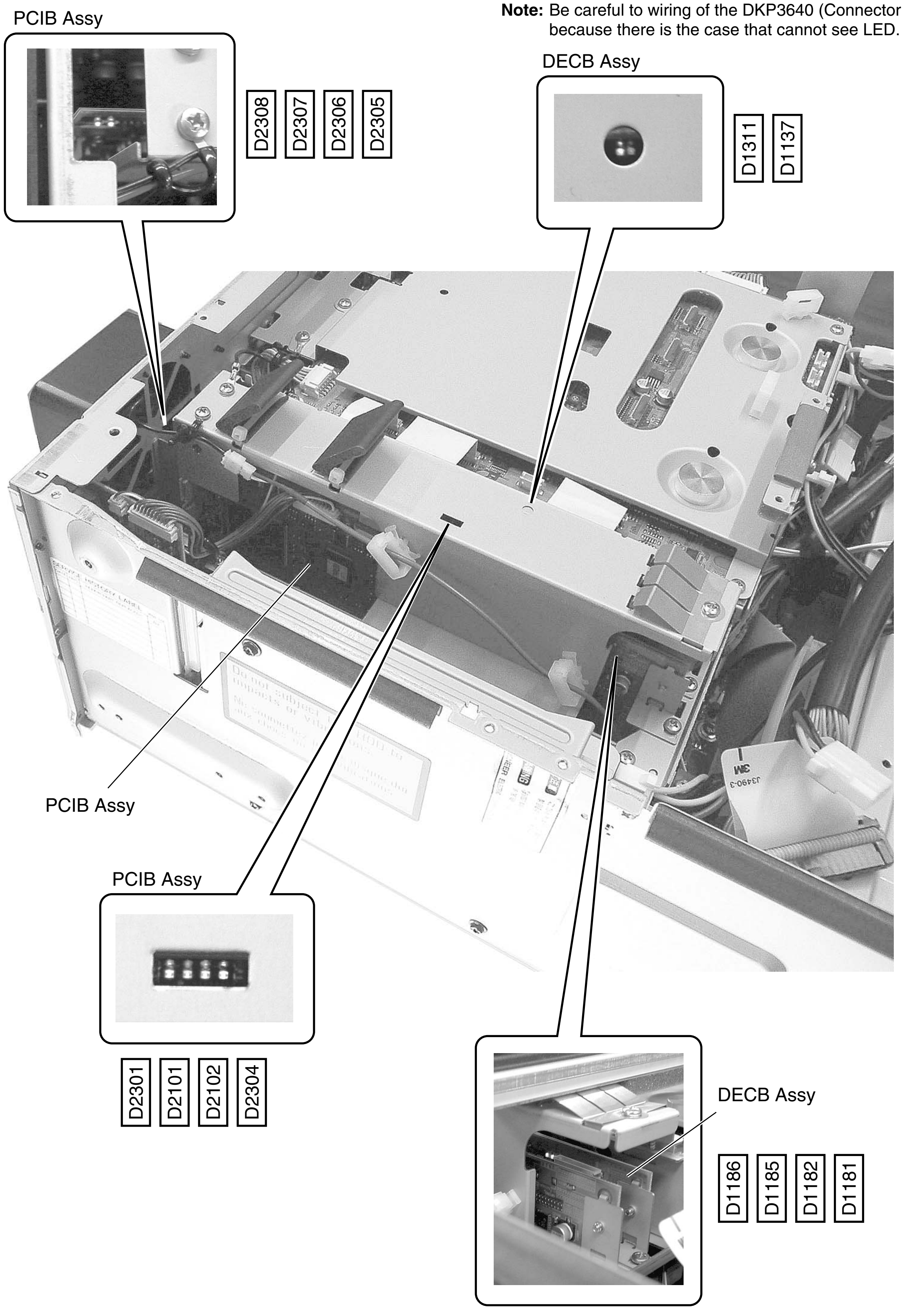
Checker Chip	Monitor Point
–	

Announcement functions of the LED and buzzer

Item	Function		Description	Remarks
Buzzer				
1	Protection of the HD boot sector		Protection of the HD boot sector (security function against computer viruses)	The warning message is displayed, with repeated peep sound.
2	Video error		This code indicates that a video error was generated. The BIOS cannot initialize the video screen for displaying additional data.	Following two peeps, a single beep sounds.
3	DRAM error		This code indicates that a DRAM error was generated.	Repeated beeps sound.
LED				
1	Power LED	S0 mode	LED ON	
		S1 mode	The LED flashes at a 1-Hz rate.	The LED flashes once per second.
		S3 mode	The LED flashes at a 1-Hz rate.	The LED flashes once per second.
		S4 mode	LED off	
		S5 mode	LED off	
2	HDD LED		The LED flashes.	The LED flashes while the data are being accessed (read/write).
3	RJ45 LED	100M	Green LED ON	 1 2 3 6
		10M	Green LED OFF	
		Link	Yellow LED flashes	
		Active	Yellow LED ON	

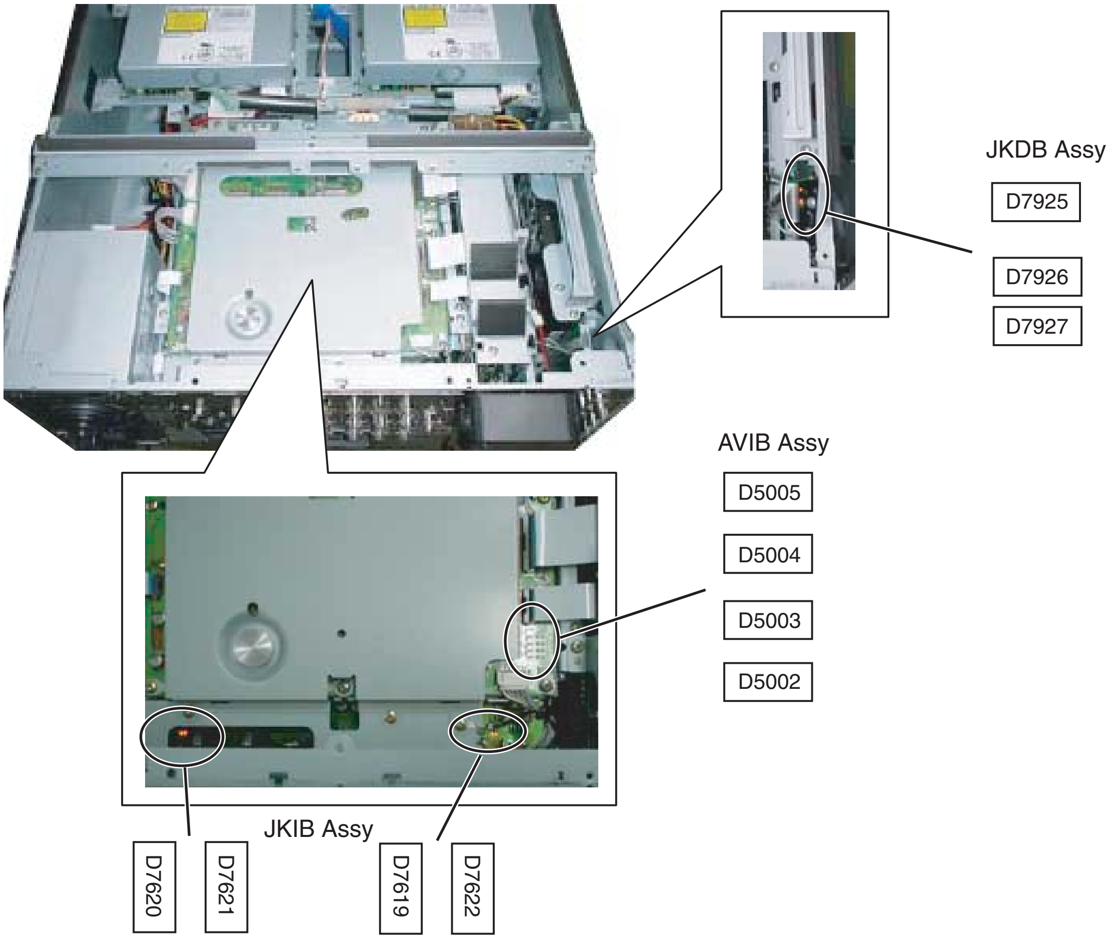
No.	Signal
1	TD+
2	TD-
3	RX+
6	RX-

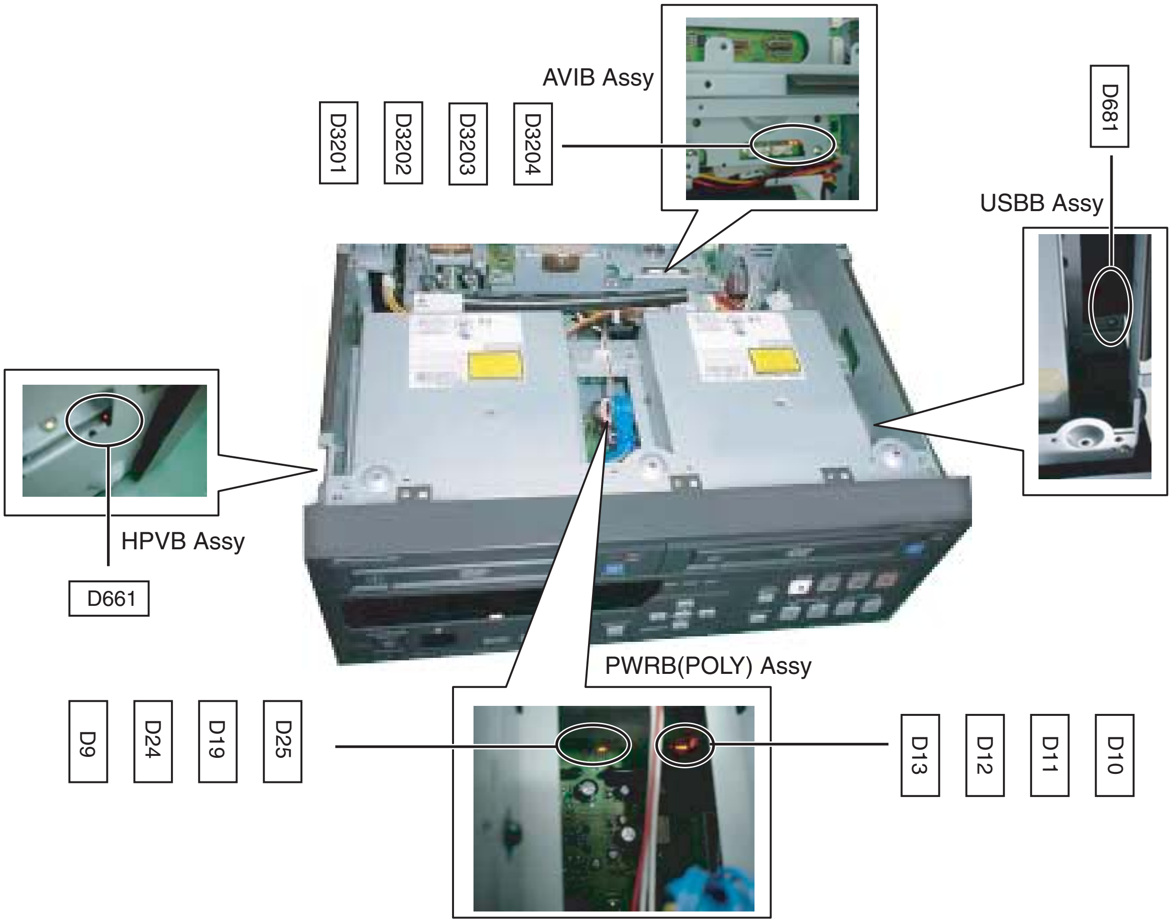
ST LED arrangement diagram of the PCIB and DECB Assys


PCIB Assy
D2308
D2307
D2306
D2305
DECB Assy
D1311
D1137
PCIB Assy
PCIB Assy
D2301
D2101
D2102
D2304
DECB Assy
D1186
D1185
D1182
D1181

Note: Be careful to wiring of the DKP3640 (Connector Assy 4P) because there is the case that cannot see LED.

ST LED arrangement diagram of the JKIB, AVIB, JKDB, HPVB, PWRB(POLY) and USBB Assys


JKDB Assy
D7925
D7926
D7927
AVIB Assy
D5005
D5004
D5003
D5002
JKIB Assy
D7620
D7621
D7619
D7622


AVIB Assy
D3201
D3202
D3203
D3204
D681
USBB Assy
HPVB Assy
D661
PWRB(POLY) Assy
D9
D24
D19
D25
D13
D12
D11
D10

7.1.4 POWER-ON SEQUENCE

Operation *1	**FL Display (left)**	**FL Display (right)**	**Video Output**	**VGA Output**
Power on	POWER	--ON--	–	–
Starting BIOS	PLEASE	WAIT	Start of opening logo display	BIOS startup screen
Searching for the drive to be started *2				
(Starting from HDD)				
Running boot loader				
Starting kernel				Start of opening logo display
Starting execution of startup script, successful communication with Front-panel-microcomputer	POWER-ON	=		
Starting checking Root file system *3	POWER-ON	==		
Completion of checking root file system	POWER-ON	===		
Completion of remounting root file system	POWER-ON	====		
Checking other file systems *4	POWER-ON	FSCK		
	POWER-ON	FSCK-HOME		
	POWER-ON	FSCK-VAR		
	POWER-ON	FSCK-RECVER		
	POWER-ON	FSCK-DATA		
Completion of mounting file systems	POWER-ON	=====		
Completion of sorting out file systems	POWER-ON	======		
Completing all the following initialization processes for the Recorder: • Initialization for each destination • Checking the region code • Updating "poweron.log" • Checking the PCI board *5 • Checking the firmware version *6 • Disposal of unnecessary files	POWER-ON	=======		
Starting initialization of the network *7	POWER-ON	========		
Completing initialization of the network	POWER-ON	=========		
Initializing the system log	POWER-ON	==========		
Completing initialization processes	POWER-ON	===========	End of opening logo display	End of opening logo display
Starting the application *8	00 : 00 : 00 : 00	00 : 00 : 00 : 00	Black or blue screen	Screen with an X-shape mouse pointer
Completing startup of application			Throughout, or black or blue screen	PRV-LX10 logo display

*1: The displays indicated in the FL-display, video-output, or VGA-output columns are to be displayed at the point when each corresponding operation finishes.

*2: In the BIOS, the HDD is programmed to be the first drive to be started. If the HDD cannot be recognized as a startup drive because of a defect, etc., the following message is displayed on the VGA output:

DISK BOOT FAILURE, INSERT SYSTEM DISK AND PRESS ENTER

In this case, check the connections at the HDD connector block. If there is any loose connection, turn off the power and clear the CMOS data (by changing the position of JP14). If this does not improve the situation, reinstall the OS.
If OS reinstallation is impossible, replace the HDD then install the OS.

*3: If an error is detected during root-file-system check, automatic restoration is performed. In this case, the indications on the FL displays change as follows:

Operation	FL Display (left)	FL Display (right)
Error detection	POWER-ON	ROOT-ERROR
Executing reboot for restoration	POWER-ON	ROOT-ERROR
Rebooting starts	START	RECVER=
In the process of restoration	START	RECVER== ~ RECVER====
Completing restoration	START	RECVER=====
Restarting booting	START	RECVER=====

If automatic restoration is repeatedly executed, reinstall the OS.
After automatic restoration is executed, the following sentence is added to the log file:

!!!!!! The root file system has been recovered !!!!!!!!

*4: If an unrecoverable error exists in another file system, one or more messages, as indicated below, will be displayed on the FL displays.

FL Display (left)	FL Display (right)
FSCK-ERROR	BOOT/USR
FSCK-ERROR	HOME
FSCK-ERROR	VAR
POWER-ON	FSCK-ERROR

Although the system can be started up even after the above messages are displayed, reinstall the OS anyway, because the system may be unstable. (In this case, an installation leaving the user data intact will suffice.)

*5: If the Encoder or Decoder board cannot be detected at startup, restarting is automatically executed. If the board cannot be detected for a second time, the application program will not be started. One of the following will be displayed on the FL displays:

Operation	FL Display (left)	FL Display (right)
In a case when the Encoder board could not be detected	-NO-BOARD-	ENCODER
In a case when the Decoder board could not be detected	-NO-BOARD-	DECODER

In this case, the following sentences are added to the log files:

Error displays for the Encoder board:
First error display : **!!!!!!!!!! NO ENCODER BOARD ERROR (REBOOT) !!!!!!!!!!**
Second error display : **!!!!!!!!!! NO ENCODER BOARD ERROR AGAIN !!!!!!!!!!**
(If this is displayed, the unit was not started)

Error displays for the Decoder board:
First error display : **!!!!!!!!!! NO DECODER BOARD ERROR (REBOOT) !!!!!!!!!!**
Second error display : **!!!!!!!!!! NO DECODER BOARD ERROR AGAIN !!!!!!!!!!**
(If this is displayed, the unit was not started)

*6: Whether or not the firmware versions for the Encoder board, Decoder board, and drive are identical to those of the application software is checked. If not identical, the application will not start up. Inconsistency of versions may result in most cases after replacing the above parts for repair. In such a case, install the latest firmware program.

*7: Initialization of the network is not executed if Network is not set to Enabled on the Function menu. If the network cable is not connected, initialization of the network is not executed even if Network is set to Enabled. If the DHCP server does not exist even if DHCP is assigned in the network setting, the startup time will be delayed more than 30 seconds.

*8: Normally, the application starts up. However, in the following cases, the application does not start up:
① When the Encoder or Decoder board could not be detected
In this case, "-NO-BOARD-DECODER" or "-NO-BOARD-ENCODER" is displayed on the FL display, and only the STANDBY/ON button will be active.

② When the firmware version for the Encoder board, Decoder board, or drive is not identical to that in the application software
In this case, "ERROR FIRM-VERSION" is displayed on the FL displays, and only the [STANDBY/ON] button will be active. This may result after replacing the PCI board with one having the old firmware when repairing. In this case, press the [STANDBY/ON] button while holding the [ENTER] button on the front panel pressed, and install the latest firmware program.

③ When the [STANDBY/ON] button is pressed while the [ENTER] button on the front panel is held pressed, Program-Install mode is activated. In this case, "PGM-INSTALL" is displayed on the FL displays.

④ If the region set for the drive is different from the destination setting for the unit, Region-Resetting mode is activated. In this case, "CHANGE-RGN" is displayed on the FL displays.

7.1.5 HOW TO CHECK THE ERROR LOG

The PRV-LX10 is provided with a log file in which the data at the point when the power is turned on are stored. In the log file, the number of times the power is turned on, time when the power is turned on and off, and error data can be checked.

■ How to check the log file

Note: • If user settings have been made, return the settings to the original ones after servicing.
• Please copy a Log file beforehand. (Refer to " [9]: Copying the Log file of 2-6 Clearing data on comulative power-on time, etc." on page 119.

1) Perform the setting for the network. (An example is shown below, but the connection is possible in a different way.)

① Make preparations for the PC.
Make the network settings for the PC, assigning the IP address as indicated below:
IP address : 192.168.0.15
Subnet mask : 255.255.255.0
Gateway : 192.168.0.1

② Turn off the PC.

③ Make the manual settings for the network of the PRV-LX10 on the Function menu (then selecting System, then Network).
IP address : 192.168.0.16
Subnet mask : 255.255.255.0
Gateway : 192.168.0.1

④ Turn off the PRV-LX10.
⑤ Connect the PRV-LX10 and the PC directly, using an Ethernet cross cable.
⑥ Turn on the PRV-LX10 and the PC.

2) Open the log file using a Web browser (IE, etc.).
Using the Web browser on the PC, access:

ftp://192.168.0.16

Enter the following user name and password:

User : DVDRecService
Password : DVDRecService

Open the "poweron.log" or "service_info.jog" file using the Web browser.

Details on the log file

The log file consists of the following items:

```
POWER-ON=7 ←——————————————————————————————————————————————————————————————— ①
1 : Power On : Mon Jun 23 21:19:26 EDT 2003 ←—————————————————————————————— ②
Shimuke=x, Region=x,x,x PowerOnKey=xxxxx
ENC OK(2.253.0.0/2.253.0.0) •••••• ===== VERSION CHECK OK ===== ←————————— ⑧
Power Off : Mon Jun 23 22:12:16 EDT 2003 ←————————————————————————————————— ③
2 : Power On : Tue Jul 8 10:10:12 EDT 2003 ←——————————————————————————————— ②
Shimuke=x, Region=x,x,x PowerOnKey=xxxxx
ENC OK(2.253.0.0/2.253.0.0) •••••• ===== VERSION CHECK OK ===== ←————————— ⑧
3 : Power On : Tue Jul 8 10:12:32 EDT 2003 ←——————————————————————————————— ②
Shimuke=x, Region=x,x,x PowerOnKey=xxxxx
----- Found a power failure in the previous power on ----- ←——————————————— ④
ENC OK(2.253.0.0/2.253.0.0) •••••• ===== VERSION CHECK OK ===== ←————————— ⑧
Power Off : Tue Jul 8 10:15:16 EDT 2003 ←————————————————————————————————— ③
4 : Power On : Tue Jul 8 14:10:22 EDT 2003 ←——————————————————————————————— ②
Shimuke=x, Region=x,x,x PowerOnKey=xxxxx
!!!!!! The root file system has been recovered !!!!!!!! ←————————————————— ⑤
ENC OK(2.253.0.0/2.253.0.0) •••••• ===== VERSION CHECK OK ===== ←————————— ⑧
Power Off : Tue Jul 8 14:12:16 EDT 2003 ←————————————————————————————————— ③
5 : Power On : Tue Jul 8 15:10:22 EDT 2003 ←——————————————————————————————— ②
Shimuke=x, Region=x,x,x PowerOnKey=xxxxx
ENC OK(2.253.0.0/2.253.0.0) •••••• ===== VERSION CHECK OK ===== ←————————— ⑧
!!!!!! NO DECODER BOARD ERROR (REBOOT) !!!!!!!! ←—————————————————————————— ⑥
6 : Power On : Tue Jul 8 16:10:22 EDT 2003 ←——————————————————————————————— ②
Shimuke=x, Region=x,x,x PowerOnKey=xxxxx
ENC OK(2.253.0.0/2.253.0.0) •••••• ===== VERSION CHECK OK ===== ←————————— ⑧
!!!!!! NO DECODER BOARD ERROR AGAIN !!!!!!!! ←————————————————————————————— ⑦
    !!!!!<<<<<PCI Access Error Count=1>>>>>(Date)Tue Jul 8 16:12 11 EDT 2003 ←— ⑨
Power Off : Tue Jul 8 16:12:16 EDT 2003 ←————————————————————————————————— ③
7 : Power On : Tue Jul 8 18:10:22 EDT 2003 ←——————————————————————————————— ②
Shimuke=x, Region=x,x,x PowerOnKey=xxxxx
ENC OK(2.253.0.0/2.253.0.0) •••••• ===== VERSION CHECK OK ===== ←————————— ⑧
```

① Number of times the power was turned on since recording of the log file started (normally, after shipment).
In the example above, the unit was turned on 7 times.

② Date and time the power was turned on

③ Date and time the power was turned off

④ This message indicates that the previous power-off process was not completed normally. If this message appears many times, it is suspected that the HDD is damaged. The user should be urged to turn off the unit using the STANDBY/ON button on the front panel. The user should even be urged to use the UPS (uninterruptible power supply), depending on the power-supply conditions.

⑤ This message indicates that the root file system was damaged because of inappropriate interruption of the power supply, etc., and that automatic restoration has been performed to retry to start up the root file system. This itself does not pose a problem, because restoration has been completed, but if this often occurs, the following problems are suspected:
(1) Because of the poor power-supply conditions on the user's side, sudden power interruptions occurred while the unit was in operation.
(2) Because the HDD was in poor conditions, sometimes files were not read properly.

⑥ This message indicates that the Decoder board was not detected on the first try. In this case, the unit is automatically rebooted, and the unit retries detection of the Decoder board. If this occurs many times, the Decoder board may be defective.

⑦ This message indicates that the Decoder board was not detected on the second try. The application is not started, the error message is displayed on the FL displays, and only the STANDBY/ON button is active. If this occurs many times, the Decoder board may be defective.

⑧ This is the result of confirmation of whether the versions of the firmware and the application program are identical or not.
If the result is not OK, the application program will not start up. Reinstall, using the correct version of the program.

⑨ If errors are generated on the PCI bus, the total number of errors detected while the power is on is recorded when the power is turned off. Unlike the service_info.log mentioned below, where error data are recorded as soon as an error is generated, in this log, the total number of errors detected is recorded, if any, when the power is turned off.

Details on the log file (service_info.log)

In the service_info.log file, detailed data on Service Info, which can be accessed by selecting Function Menu, System, Information, then Service Info, are recorded, as shown below:

```
<<<<< Start PRV-LX10 >>>>>   Mon Oct 20 06:25:22 EDT 2003 ← ①
  -- HDD SMART:Val(Max)/Thrsh --<<Spare Sector>> fd(fd)/3f  <<Sk ErrRate>> fd(fc)/00
<<Spdl Mtr Retry>> fd(fc)/9d <<W ErrRate>> fd(fc)/00 Lecel=0 ← ②
  !!!!!<<<<< PCI Access Error Count = 1  >>>>> (Date) Mon Oct 20 06:25:51 EDT 2003 ← ③
  !!!!!<<<<< PCI Access Error Count = 2  >>>>> (Date) Mon Oct 20 06:27:23 EDT 2003 ← ③
  <<Check HDD SMART Data>>:Mon Oct 20 06:28:15 EDT 2003 ← ④
  -- HDD SMART:Val(Max)/Thrsh --<<Spare Sector>> fd(fd)/3f  <<Sk ErrRate>> fd(fc)/00
<<Spdl Mtr Retry>> fd(fc)/9d <<W ErrRate>> fd(fc)/00 Lecel=0 ← ④
<<<<< Start PRV-LX10 >>>>>   Mon Oct 20 06:30:43 EDT 2003 ← ①
  -- HDD SMART:Val(Max)/Thrsh --<<Spare Sector>> fd(fd)/3f  <<Sk ErrRate>> fd(fc)/00
<<Spdl Mtr Retry>> fd(fc)/9d <<W ErrRate>> fd(fc)/00 Lecel=0 ← ②
<<<<< Start PRV-LX10 >>>>>   Mon Oct 20 07:09:38 EDT 2003 ← ①
  -- HDD SMART:Val(Max)/Thrsh --<<Spare Sector>> fd(fd)/3f  <<Sk ErrRate>> fd(fc)/00
<<Spdl Mtr Retry>> fd(fc)/9d <<W ErrRate>> fd(fc)/00 Lecel=0 ← ②
```

① Time when the PRV-LX10 starts up

② Data from "--HDD SMART:Val(max)/Thrsh--" to "Level=0" indicate SMART data regarding the built-in HDD confirmed when the PRV-LX10 starts up. The results of confirmation on SMART data are recorded in the log file when System is selected by opening Function Menu then System, as well as at startup. The levels of self-diagnosis results are as shown below.
It should be noted that the descriptions of the levels are different from those used on the Function Menu.
For details, see "Levels of the self-diagnosis results of the HDD and measures to be taken for them."
0: Normal operation
1: Level calling for the user's attention (indicated as 0+ on the Function Menu)
2: Level calling for the user's attention (indicated as 1 on the Function Menu)
3: Warning symptoms of an HDD failure (indicated as 2 on the Function Menu)
4: On the brink of an HDD failure (indicated as 3 on the Function Menu)
5: HDD failure (indicated as 4 on the Function Menu)

③ A total number of errors generated on the PCI bus after the PRV-LX10 starts up is recorded (Each time the power is turned on, the number of errors is counted from 0). If errors are frequently generated, it may because of a defective Motherboard or PCI board, or poor connection caused by inappropriate installation of the PCI board. Error data are recorded in the log file each time an error is generated. Error data are also indicated on the Service Info page, which can be accessed by selecting Function Menu, System, Information, then Service Info, only when an error is generated (the first figure indicates the level of the self-diagnosis results of the HDD, and the second indicates the total number of PCI bus errors).

④ Each time the unit starts up, and each time System is selected (select Function Menu then System), the level of the self -diagnosis results of the HDD is confirmed and recorded in the log file. Data from "<<Check HDD SMART Data>>" to "Level=0" are the results of confirmed SMART data to be recorded when System is selected (select Function Menu then System).

■ Levels of the self-diagnosis results of the HDD and measures to be taken for them

In the service_info.log file, detailed data on Service Info, which can be accessed by selecting Function Menu, System, Information, then Service Info, are recorded, as shown below:

Measures to be taken for each level of the self-diagnosis results of the HDD are shown below.
The levels of the self-diagnosis results of the HDD can be confirmed from the log file (service_info.log), as well as on the Function Menu. However, it should be noted that the descriptions of the levels are different between those used in the log file and on the Function Menu (for example, Level 2 in the log file is equivalent to Level 1 on the Function Menu).

- **Level 0** (Level 0 on the Function Menu): Normal operation
  No problem

- **Level 1** (Level 0+ on the Function Menu): Level calling for the user's attention
  Although it has not constituted a problem yet, the user should be notified to make backups of data on the HDD, following the procedure in the instruction manual. Check if the HDD has been exposed to any inappropriate environment, such as extreme temperature, vibration, noise, or temporary blackout, on the user's side. Especially, check if the user turns off the power in a correct way. If user's handling of the HDD is inappropriate, he/she must be instructed on appropriate handling of the HDD.

- **Level 2** (Level 1 on the Function Menu): Level calling for the user's attention
  Although it has not constituted a problem yet, replace the HDD if symptoms as shown below appear. Even if such symptoms do not appear, the user should be strongly recommended to make backups of data on the HDD, following the procedure in the instruction manual. Check if the HDD has been exposed to any inappropriate environment, such as extreme temperature, vibration, noise, or temporary blackout, on the user's side. Especially, check if the user turns off the power in a correct way. If user's handling of the HDD is inappropriate, he/she must be instructed on appropriate handling of the HDD.

  Case 1:
  Although the power was turned off by pressing the POWER button on the front panel of the main unit, the following symptoms appear when the unit starts up. (The following symptoms are likely to appear if the power was forcibly turned off with the power switch on the rear panel. Be sure to check how the user turned the power off.)
  ① The unit occasionally does not start up normally.
  ② While the program is starting up, it often occurs that the messages [POWER-ON] and [ROOT-ERROR] are displayed on the FL display and that the time required for startup becomes longer. (If the message [ROOT-ERROR] is displayed occasionally, it is not a problem. But if it is often displayed, it is a problem.)
  ③ While the program is starting up, it often occurs that the messages [POWER-ON] and [FSCK-XXXX] are displayed on the FL display for more than 30 seconds and that the time required for startup becomes longer. (If the message [FSCK-XXXX] is displayed occasionally for more than 30 seconds, it is not a problem. But if it is often displayed, it is a problem.)

  Case 2:
  Although the Decoder board is normal, one of the following symptoms appears when data recorded on the HDD are played back:
  ① playback stops around many particular points (in many sessions), or
  ② the playback picture is disturbed around many particular points (in many sessions.)

  Case 3:
  When checking of the HDD is executed by selecting Function Menu, System, HDD Tools, then Check, the program freezes up (checking is not finished even after 30 minutes or more).

  Case 4:
  Other symptoms likely to be caused by a failure in the HDD

- **Level 3** (Level 2 on the Function Menu): Warning symptoms of an HDD failure
  As this level may have resulted from a temporary cause, it is defined as a level that requires careful use of the HDD as per the instruction manual. The cause may not be a problem if the user does not recognize any symptom. Thus, even if the result level is 3, it does not mean that replacement of the HDD is necessary. However, it is not recommended that the user continue using the unit as is. Therefore, if servicing is requested by the user, even if the request for servicing is for another reason, replacement of the HDD should be also performed. In such a case, check if the HDD has been exposed to any inappropriate environment, such as extreme temperature, vibration, noise, or temporary blackout, on the user's side. Especially, check if the user turns off the power in a correct way. If user's handling of the HDD is inappropriate, he/she must be instructed on appropriate handling of the HDD.

- **Level 4** (Level 3 on the Function Menu): On the brink of an HDD failure

- **Level 5** (Level 4 on the Function Menu): HDD failure
  Replace the HDD. If failures of these levels occurred several times within 2 years after installation, it is likely that the HDD has suffered from mishandling by the user. If it is the case, the user must be instructed on appropriate handling of the HDD.

7.1.6 ERROR LOG DISPLAY

How to display the Error log

- Start the PRV-LX10 and let it run idle (in the state in which the Function menu is not displayed and neither recording nor playback is performed).
- On the remote control unit for service, press the [ESC], [TEST], [REP.A], and [8] keys, in that order.
  The error log for Drive 1 is displayed.
- To display the error log for Drive 2, press the [ESC], [TEST], [REP.A], and [9] keys, in that order.

Outline of the Error log

Up to 8 error records (16-byte data per record) are held for each drive (see Table 1 "Error record"). If there are more than 8 errors, the oldest record is deleted each time a new one is logged.

Description of the Error log

The order of error generation and error codes are described here.

1. Order of error generation
One byte of data at the beginning of each record (Byte 0) is called the Identity code. The Identity code of the latest record is FFh, and for other records it is 00h. However, if an error is generated for the first time after the power was turned on, FFh is rewritten as BBh. Therefore, from the record having "FFh" Identity code back to the record immediately before that having "BBh" as its Identity code are the error records generated from the latest power-on until the present (or the latest power-off).

Note: At the initial setting, all codes of any record are set FFh. If all codes in a record are FFh, it means that the record has no valid data.

2. Error codes
At Byte 7 of each record, an error code is stored. For details on error codes, see Table 2. Ignore any record whose code for Byte 8 (execute task) is 88h, because it means that the record is for obtaining data on internal status.

Note: The data displayed on the error-log screen are directly dumped from the error-log data stored in memory for the drive, and no process (including data sorting) is added on the part of the PRV-LX10 application.

Table 1: Error record

0	1	2	3	4	5	6	7
Identify	aging No.	aging pointer	controller command	controller step	host command	endeco command	error code
8	9	10	11	12	13	14	15
excute task	error address (H)	error address (M)	error address (L)	error detail (H)	error detail (L)	aging cycle (H)	aging cycle (L)

Table 2: Description on error codes

Code	Content	Supplementary information
01h	DECODE_ERROR	Failure in reading PreGap (CD), improper results of RFEndSeek (DVD)
02h	RF_NOT_EXIST,	Read-request address not recorded
03h	RMD_NOT_DETECT,	RMD not detected
04h	LIN_NOT_DETECT,	Lead-in not detected
05h	LIN_NOT_COMPLETE,	Incomplete lead-in
06h	ILLEGALL_NUMBER_OF_BYTE,	Illegal CD mode detected (Illegal Mode for This Track Error)
07h	IF_ABORT_DET,	Processing aborted upon the request of I/F
08h	MECHA_TIMEOUT,	Timeout waiting for search
09h	BUFFERING_TIMEOUT,	Combo Chip decoding not started (the screen is frozen but remains active)
0Ah	RETRY_TIMEOVER,	Number of times of retrial over
0Bh	READ_TIMEOUT,	Timeout waiting for read process
0Ch	RECOVERED_DATA,	"Recovered error" detected
0Dh	VERIFY_ERROR,	An error was generated while the Verify command was being processed
10h	M63_INTERNAL_ERR	Failure in internal processing
11h	M63_FORMATTER_ERR,	Failure in detecting a sync
12h	M63_IDOVER_ERR,	Target-ID exceeded
13h	M63_HDCMP_ERR,	Header-compare error
14h	M63_UNCORRECTABLE_ERR,	Unrecoverable error
15h	M63_CRC_ERR,	CRC error
16h	M63_ETC_ERR,	Other errors of Combo Chip
17h	M63_BLK_ERR,	CIRC unrecoverable error
18h	M63_HDC2_ERR,	Header C2 error
19h	Internal Timeout	Timeout waiting for Combo Chip internal processing
1Ah	M63_TRX_ERR	Failure in transmitting data to the host computer
1Bh	Mecha Not Active	Mechanical-control computer not ready for search (tray opened, etc.)
1Ch	FIFO Error	Internal FIFO error
1Dh	Buffering Abort	Failure in obtaining DVD-data-type information
1Eh	Too Far From Target ID	Improper address after search (too far before the target address)
1Fh	M63 Replay Req.	Combo-Chip decoding not started (the unit arbitrarily returns to idling status)
20h	Buffer Full	
21h	Buffer Under Run	
22h	Panic in	
23h	Discontinuous time data	
24h	Wobble servo phase difference exceeded	
25h	ASYOVR allowable count number exceeded	
26h	ASYNC allowable interpolation number exceeded	
27h	Invalid Cue Sheet	
28h	Non Cue Sheet	
29h	Disc Full	
2Ah	Reserved Track Full	

Code	Content	Supplementary information
2Bh	Address Error	
2Ch	Abort because of a mechanical error	
2Dh	Abort by the host computer	
2Eh	Invalid Command	
2Fh	Target Address Over	
30h	OPC record error (before encoding)	
31h	OPC record error (after encoding)	
32h	OPC playback error (during playback)	
33h	OPC playback error (data error)	
34h	OPC upper limit of power exceeded	
35h	OPC lower limit of power exceeded	
36h	Encode Start Error	
37h	Unexpected Status Error	
38h	CD Over Power Error	
39h	Shock Detect Error	
40h	Buffer full	
41h	Buffer underrun	
42h	Lower OPC power	
43h	Higher OPC power	
44h	OPC failure	
45h	Encoding failure	
46h	DMA failure	
47h	DECSS measures	
48h	Inconsistency in rotation speed of the spindle	
49h	Write power 0	
4Ah	OPC record failure (retry is possible)	
60h	Command Sequence Error */	
61h	Logical Unit Communication Failure */	
62h	Illegal Logical Block Address */	
63h	Internal Controller Error */	
64h	Prevent Medium Removal */	
65h	System Resource Failure */	
66h	Authentication Failure */	
67h	Key Not Present */	
68h	Key Not Established */	
69h	Authentication Not End */	
6Ah	Incompatible Format */	
6Bh	Region Mismatch */	
6Ch	Region Reset Count Error */	
6Dh	De-Compression CRC Error */	

Code	Content	Supplementary information
6Eh	OPC area full */	
6Fh	OPC area almost full */	
70h	Parameter Value Invalied */	
71h	Media detect error */	
72h	RMA almost full */	
73h	Media not Present */	
74h	Long Write In Progress */	
75h	Session is not full */	
76h	Subcode-Q is not valid */	
77h	track start arress is not valid */	
78h	track end arress is not valid */	
79h	track end arress error at incomplete track	
7Ah	Pregap read error	
7Bh	PMA is not complete	
7Ch	Vender reset Sequence Error	
7Fh	Data compare error (for aging)	
80h	Unsupported Command	
81h	Illegal Mode	
82h	Illegal Request	
83h	Aborted	
84h	Timeout	
88h	Loading Mecha NG	
89h	TOC Read Error	
8Ah	PrePit Read Error	
8Bh	BCA READ ERROR	
90h	Search Address Error	
91h	Illegal Track Request	
A0h	No Disc	
A1h	Disc NG	
A8h	Servo NG Stop	
A9h	Line Adjustment NG	
Aah	Auto Adjustment Data NG	
B0h	Focus Close Fail	
B1h	Focus Servo Failure	
B5h	Focus Jump Fail	
B8h	RF not exist	
C0h	Track Close Fail	
C1h	Track Servo NG	
C2h	Track Jump NG	
D0h	Spindle Start Fail	
D1h	Spindle Stop Fail	
D2h	Spindle High Speed Fail	
D3h	Spindle Low Speed Fail	
D4h	Spindle DVD Wob In Fail	
D5h	OPC end search Error	
D6h	RF end search Error	
D7h	Spindle DPLL ON Error	
D8h	Spindle RF Error	
D9h	Tilt Adjustment Error	

7.1.7 DEBUGGING DISPLAY MODE

■ How to operate in Debugging Display mode

1) To enter ([ESC] - [DISPLAY])
To enter Debugging Display mode, press the [ESC] key on the remote control unit for service then the [DISPLAY] key.

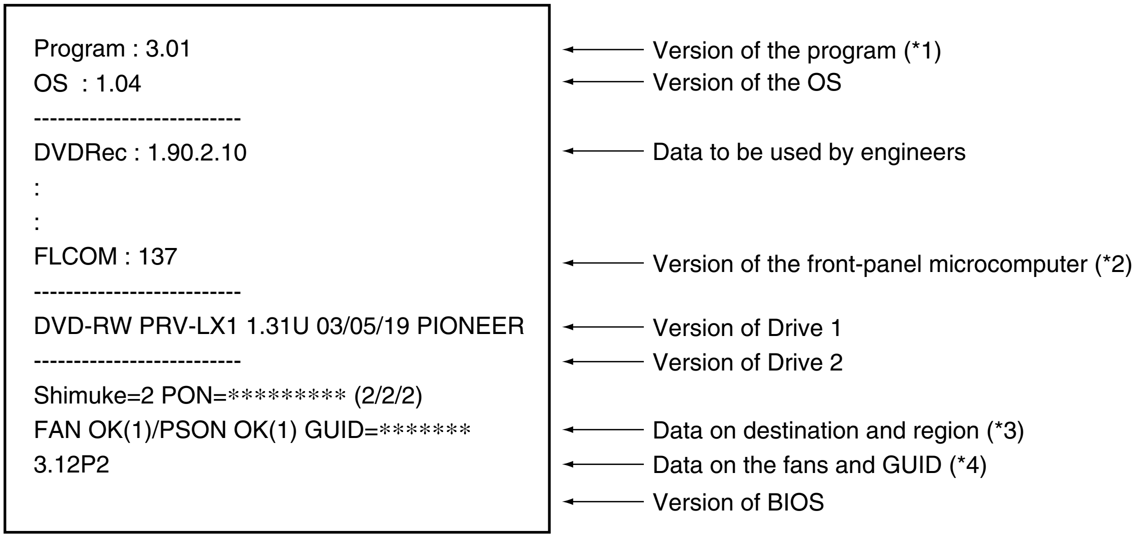
2) To advance a page ([DISPLAY])
After entering Debugging Display mode, press the [DISPLAY] key. Each time the key is pressed, the page advances by one. You cannot turn the page backward.

3) To advance a subpage ([SIDE-A] or [SIDE-B])
Some pages have subpages. You can advance or go back one subpage using the [SIDE-A] or [SIDE-B] key.

4) To exit ([ESC])
To exit Debugging Display mode, press the [ESC] key. If the [ESC] key then the [DISPLAY] key are pressed to enter Debugging Display mode again, the last page previously displayed is displayed.

■ Description of pages

1) Version information (Page 1)
The version for each program is displayed.



```
Program : 3.01
OS  : 1.04
-------------------------
DVDRec : 1.90.2.10
:
:
FLCOM : 137
-------------------------
DVD-RW PRV-LX1 1.31U 03/05/19 PIONEER
-------------------------
Shimuke=2 PON=********* (2/2/2)
FAN OK(1)/PSON OK(1) GUID=*******
3.12P2
```

Version of the program (*1)
Version of the OS
Data to be used by engineers
Version of the front-panel microcomputer (*2)
Version of Drive 1
Version of Drive 2
Data on destination and region (*3)
Data on the fans and GUID (*4)
Version of BIOS

∗ : Arbitrary

(*1) If "XX.XX-XX" is displayed as the program version, only the OS has been installed, but the application program has not been installed. Install the correct program.

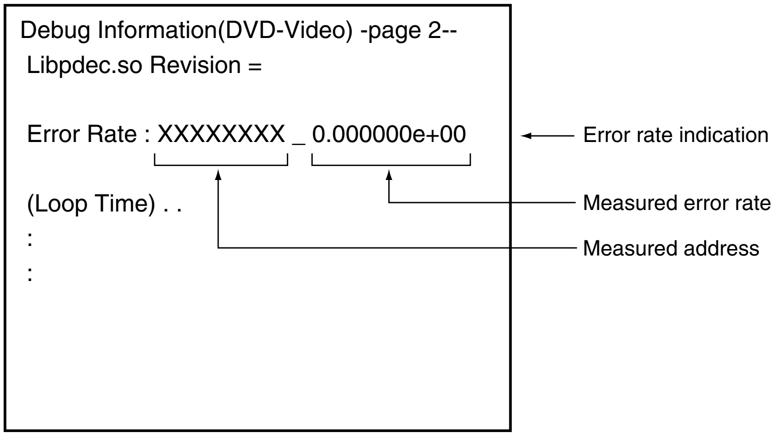
(*2) IC501 PE5392A9 FLCOM:137
PE5392B8 FLCOM:138

(*3) Breakdown of destination:
0: J (Japan), 1: KU (North America), 2: WY (Europe)
The data on region in the above example are "(1/1/-1)," expressing "(region for the Decoder board/region for Drive 1/region for Drive 2)" ("-1" means that Drive 2 does not exist).

(*4) "OK" is displayed when two fans in the front section and a fan at the rear section (a fan not for the power-supply block) are operating properly. "GUID=xxxxx" is for DV.

2) Disc playback data (Page 2)

The internal data regarding disc playback are displayed. On this page, the error rate during disc playback can be confirmed.
To start measuring the error rate, enter Debugging Display mode then press the PLAY key on the remote control unit for servicing. The results are displayed in the order of measured address and measured value.
The indication "XXXXXXXX_0.000000e+00" as shown in the figure below indicates the status before a measuring task starts.
To cancel measuring in progress, press the CLEAR key on the remote control unit for servicing.



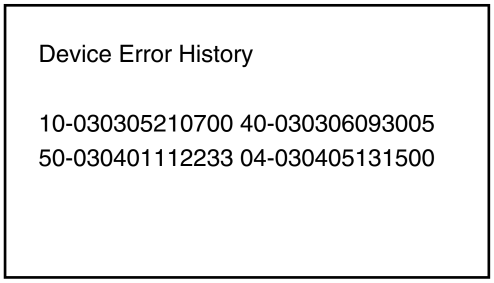
```
Debug Information(DVD-Video) -page 2--
 Libpdec.so Revision =

 Error Rate : XXXXXXXX _ 0.000000e+00

 (Loop Time) . .
 :
 :
```

3) Data on the Decoder board (Page 3)

The data on the Decoder board are displayed. One among several subpages is for the error log for the Decoder board. You can go forward or back one subpage using the [SIDE-A] or [SIDE-B] key. To see the error log for initialization and self-diagnosis, after entering Page 3, press the [SIDE-A] key once. The following screen is displayed.

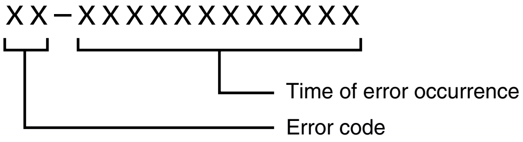
Note: If the Decoder board is defective, in many cases the TV output becomes unavailable. Therefore, the error records explained below may not be confirmed.

The error records are displayed as shown below. If no error was generated in the past, "No device error" is displayed.



```
Device Error History

10-030305210700 40-030306093005
50-030401112233 04-030405131500
```

In the above example, 4 error records are recorded. The first two digits in each record stand for the error type, and the following 12 digits express the time of occurrence:



The time of error occurrence is expressed as "YYMMDDHHMMSS." So, "030110112345" means 11 o'clock 23 min 45 sec, January 10, 2003.

The breakdown of 2-digit error codes is as follows:

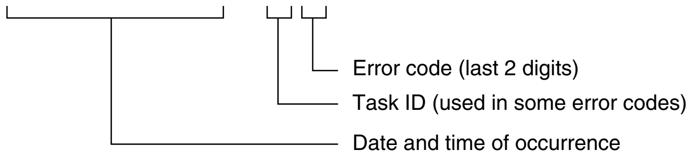
1 : Xilinx Configuration Error
Configuration of Xilinx (FPGA for PCI interface) failed.
4 : SH SDRAM Access Error
Reading from or writing in the SDRAM connected to the SH bus failed.
10 : Video Encoder Initialize Error
Communication with the Video Encoder (ADV7172) failed.
20 : AV Decoder Initialization Error
The AV Decoder (M65776AFP) failed to start up, or access to the AV Decoder failed.
40 : AV Decoder SDRAM Access Error
Reading from or writing in the SDRAM connected to the AV Decoder bus failed.

Some of the above errors may occur simultaneously. For example, "50" means the errors of error codes 10 (Video Encoder Initialize Error) and 40 (AV Decoder SDRAM Access Error) were generated at the same time.

4) Data on the Encoder board (Page 4)

The data on the Encoder board are displayed. If the [SIDE-A] key is pressed on this page, the error log for the Encoder board can be checked.
An error record is expressed as shown below:

(Example) 2003/07/01 10:30:20 == 09 03 ==


Error code (last 2 digits)
Task ID (used in some error codes)
Date and time of occurrence

The meaning of the error codes and correction measures are described below:

Code	Content of Error	Correction Measures
01	Data Read Timeout Error	Turn the power off then on again.
02	Copy Protection Error	As the selected input signal is copy-protected, recording could not be performed. When this error is generated even if the video signal from the disc created by the PRV-LX1 is to be recorded, replace the AVIB board.
03	(task ID : 09(h))Illegal frame number Error	Turn the power off then on again.
	(task ID : 32(h))No digital signal Error	Because no digital signal is input to the selected digital input connectors, recording could not be performed. When this error is generated even if the digital signal is confirmed to be input to the DV connectors, etc., replace the AVIB board.
04	PCI Destination Address Timeout Error	Turn the power off then on again.
05	PCI Map Timeout Error	Turn the power off then on again.
C9	Hard Error	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
CA	Reset Error	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
	(task ID : 0A(hex))Stream Buffer Full Error	Turn the power off then on again.
CB	Initialize Error	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
CC	Standby Error	Turn the power off then on again.
CD	Command Error	Turn the power off then on again.
CE	Stream Timeout Error	Turn the power off then on again.
CF	Command Timeout Error	Turn the power off then on again.
D0	Buffer Full Error	Turn the power off then on again.
D2	Hard Error(Audio Enc.)	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
D3	Reset Error(Audio Enc.)	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
D4	Initialize Error(Audio Enc.)	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
D5	Standby Error (Audio Enc.)	Turn the power off then on again.
D6	Command Error (Audio Enc.)	Turn the power off then on again.
D7	Command Timeout Error (Audio Enc.)	Turn the power off then on again.
DC	Hard Error (Video Enc.)	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
DD	Reset Error (Video Enc.)	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
DE	Initialize Error (Video Enc.)	Check wiring or connections. If the problem persists after corrective measures are taken, replace the AVIB board.
DF	Standby Error (Video Enc.)	Turn the power off then on again.
E0	Command Error (Video Enc.)	Turn the power off then on again.
E1	DV Decode Error	Turn the power off then on again.
E2	DV Encode Error	Turn the power off then on again.
E3	FS Change Error (before)	Turn the power off then on again.
E4	FS Change Error (after)	Turn the power off then on again.
E5	Command Timeout Error (Video Enc.)	Turn the power off then on again.
E6	Command Execute Error (Video Enc.)	Turn the power off then on again.

5) Recording data (Page 5)

The internal data on recording are displayed.

6) Application data (Page 6)

The internal data on the application are displayed.

■ Note on the drive error log: The drive error log can be displayed in Test mode.

7.1.8 LIST OF BIOS SETTING VALUE

Customized Default Values	
	Ver3.12P2
Standard CMOS Features	
Date (mm:dd:yy)	G.M.T (Greenwich Mean Time)
Time (hh:mm:ss)	G.M.T (Greenwich Mean Time)
IDE Primary Master	Depends on assembled IDE Device
IDE Primary Slave	Depends on assembled IDE Device
IDE Secondary Master	Depends on assembled IDE Device
IDE Secondary Slave	Depends on assembled IDE Device
Drive A	None
Drive B	None
Video	EGA/VGA
Halt On	All, But Disk/Key
Advanced BIOS Features	
Virus Warning	Disabled
CPU L1 & L2 Cache	Enabled
Quick Power On Self Test	Enabled
First Boot Device	HDD-0
Second Boot Device	CD-ROM
Third Boot Device	Disabled
Boot Other Device	Disabled
Swap Floppy Drive	Disabled
Boot up Floppy Seek	Disabled
Boot up Numlock Status	On
Gate A20 Option	Fast
Typematic Rate Setting	Disabled
Typematic Rate (Chars/Sec)	N/A
Typematic Delay (Msec)	N/A
Security Option	Setup
APIC Mode	Enabled
MPS Version Control For OS	1.4
OS Select For DRAM > 64MB	Non-OS2
Report No FDD For WIN 95	Yes
Small Logo(EPA) Show	Disabled
Advanced Chipset Features	
DRAM Timing Selectable	By SPD
CAS Latency Time	N/A
Active to Precharge Delay	N/A
DRAM RAS# to CAS# Delay	N/A
DRAM RAS# Precharge	N/A
Turbo Mode	Disabled
Memory Frequency For	Auto
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Disabled
Memory Hole at 15M-16M	Disabled
Delayed Transaction	Enabled
Delay Prior to Thermal	16 Min
AGP Aperture Size (MB)	64
On-Chip VGA	Enabled
On-Chip Frame Buffer Size	8MB

Customized Default Values	
	Ver3.12P2
Integrated Peripherals	
IDE DMA transfer access	Enabled
On-Chip Primary PCI IDE	Enabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
On-Chip Secondary PCI IDE	Enabled
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
USB Controller	Enabled
USB 2.0 Controller	Enabled
USB Keyboard Support	Enabled
USB Mouse Support	Enabled
AC97 Audio	Disabled
Init Display First	Onboard/AGP
Onboard LAN	Enabled
Onboard LAN boot ROM	Disabled
IDE HDD Block Mode	Enabled
POWER ON Function	BUTTON ONLY
KB Power ON Password	N/A
Hot Key Power ON	N/A
Onboard FDC controller	Enabled
Onboard Serial Port 1	3F8/IRQ4
Onboard Serial Port 2	2F8/IRQ3
Onboard Parallel Port	Disabled
Parallel Port Mode	N/A
ECP Mode Use DMA	N/A
Power Management Setup	
ACPI Suspend Type	S1(POS)
Run VGABIOS if S3 Resume	N/A
Power Management	User Define
Video Off Method	DPMS
Video Off In Suspend	Yes
Suspend Type	Stop Grant
MODEM Use IRQ	3
Suspend Mode	Disabled
HDD Power Down	Disabled
Soft-Off by PWR-BTTN	Instant-Off
After Power Loss	Stay Off
Wake-Up by PCI card	Enabled
Power On By Ring(S5/DOS)	Disabled
USB KB Wake-Up From S3	N/A

Customized Default Values	
	Ver3.12P2
Power Management Setup	
Resume by Alarm	Disabled
Date(of Month) Alarm	N/A
Time(hh:mm:ss) Alarm	N/A
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD,COM,LPT Port	Disabled
PCI PIRQ[A-D]#	Disabled
PnP/PCI Configurations	
Reset Configuration Data	Disabled
Resource Controlled by	Auto(ESCD)
IRQ Resources	N/A
Frequency Control	
Auto Detect PCI Clk	Enabled
Spread Spectrum	Enabled
Set Supervisor Password	Disabled
Set User Password	Disabled

7.1.9 REWRITING OF THE GUIDS

Notes:

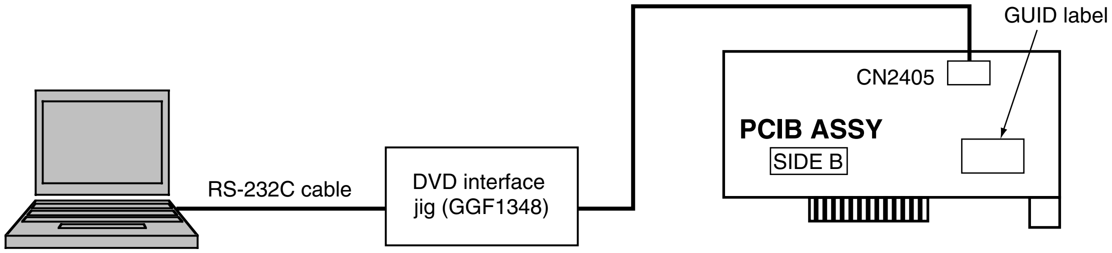
- Because the GUIDs are written on the PCIB Assy before shipping, rewriting of the GUIDs is not necessary when replacing the PCIB Assy.
- When IC2406 (PD6453D8) on the PCIB Assy is replaced, rewriting of the GUIDs is required.

When rewriting the GUIDs, connect the COM port of your PC and the connector for servicing mounted on the PCIB Assy of the unit.
For transmission of commands, use general-purpose RS-232C communication software.
Communication settings are as follows:

Bit rate	: 57600 bps
Data bits	: 8
Parity	: None
Stop bit	: 1
Flow control	: None

Procedures:

1. Take note of the numbers written on the GUID label stuck on the PCIB Assy.
2. Install the PCIB Assy in the unit. Connect the COM port of your PC and CN2405 on the PCIB Assy, using the DVD interface jig (GGF1348).

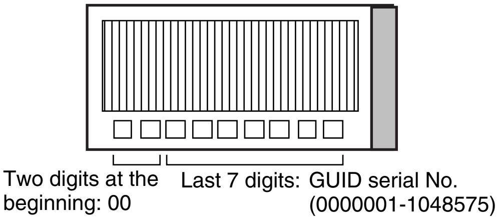


3. Turn the unit on. After the unit starts up, enter "/15*****/SW" from the PC then press [ENTER] key to send the command ("*****" stands for a specific GUID).
   Note: The value written on the GUID label is in decimal notation and must be converted to hexadecimal for writing a command. For details, see "Format of the GUID label."
4. Enter "SR" from the PC then press [ENTER] key to send the command.
   As "GUID: 15*****" is displayed, check that this value is the same as that entered in Step 3.

Format of the GUID label (for reference)

The IEEE1394 Interface is mounted in the unit, and the EUI-64 codes are written in the flash ROM (IC2406) on the PCIB Assy. On the GUID label, this content is described.

1. Printing format
   Label: The part No. of the label is VRW1877.
   Print color: Black
   Printed content: Barcode: CODE128
   Numerics: GUID serial No. (last 7 digits)


Two digits at the beginning: 00
Last 7 digits: GUID serial No. (0000001-1048575)

2. Relationship between the ID of the Assy and the serial number
   The values written on the Assy are the ID of the product (0x015) and the GUID serial No. specific to each product. The relationship between these numbers and the serial numbers printed on the label is as shown below:

Relationship between the ID of the Assy and the serial number

Values (in hex) to be written on the Assy	Serial numbers (in decimal) printed on the label
01500001	000000001
01500002	000000002
: :	: :
015f f f f f	001048575

7.1.10 CAUTIONS ON HANDLING THE HDD

(1) Cautions on Handling the HDD

- The HDD is very sensitive to shocks and vibrations. Care must be taken especially during operation (when the power is on).
- The HDD is very sensitive to electrostatic charges.
- Rapid change in temperature or humidity may cause deterioration of the HDD.

Note: After receiving damage caused by any above-mentioned factors, the HDD may operate normally for dozens or some hundreds of hours but then suddenly crash. If you are certain you have damaged a new repair part (HDD) while making repairs, do not use the part.

The HDD is about 10 times as sensitive to shock during operation than during nonoperation.

Reference: Main specifications on damage to the HDD

	During operation	During nonoperation
Shock G (acceleration)	<approx. 20 G	<approx. 200 G
Temperature change	< 20°C/hour	
Moisture change	< 20%/hour	

Reference: Estimate value of falling distance vs. shock (G) when the HDD is dropped without protection

Landing surface Falling distance	Granite surface	Concrete floor	Synthetic-resin-coated table	Antistatic sponge
0.5 inch / 1.27 cm	387	217	200	26
1.0 inch / 2.54 cm	595	457	310	37
2.0 inch / 5.08 cm	1133	600	680	70
4.0 inch / 10.16 cm	1795	1040	1050	267

(2) Cautions on handling the product on which the HDD is mounted or the HDD as a repair part, and examples of dangerous handling

[Cautions on handling the product on which the HDD is mounted]

- While the unit is turned on, the HDD is always in operation. Be sure NOT to impart shock to the unit.

● **Examples of dangerous handling: while the power is on**

- Bumping on the bonnet
- Dropping an object, such as a small screwdriver or remote control unit, onto the bonnet, or bumping an object against the cabinet
- Moving the unit by dragging
- Stacking another product on the unit

Note: Be sure NOT to impart shock, such as bumping or hitting a screwdriver against the HDD, during diagnosis with the bonnet open.

● **Examples of dangerous handling: while the power is off**

- Imparting strong shock, although the HDD is more resistant to shock when the power is off
- Dropping the unit from a height of several centimeters, or after lifting one side of the unit up, then letting the unit drop.

- Do NOT move the unit immediately after the power is turned off. Wait at least 30 seconds after the indication on the FL display changed from POWER OFF to the clock indication before moving the unit.
  If the AC power cord is accidentally disconnected before turning the unit off, wait at least for one minute before moving it. In this case, damage to the HDD caused by sudden shutoff may be small, because the emergency relief mechanism is activated. However, if sudden shutoff occurrs during recording or playback, recorded data may be damaged. Be sure to check operations.

[Cautions on handling the HDD as a repair part]

1. Handle the HDD in a safe environment:
   - Handle the HDD over an antistatic pad that can also absorb shock.
   - Wear wrist bands to prevent electrostatic charges generated in your body from affecting the HDD.

2. The following must be observed when handling the HDD:
   - Handle one HDD at a time. Do NOT hold several HDDs at the same time.
   - Grip the HDD on both sides so that you do not touch its terminals or circuit boards.
   - Do NOT stack one HDD onto another HDD (even if the HDDs are protected in antistatic bags).
   - Do NOT bump the HDDs against one another.
   - Do NOT bump any tool, such as a screwdriver, or other hard object against the HDD.
   - When a repair part (HDD) is transported and there is a large temperature difference between outdoors and indoors, to the indoor, leave it in its package for about a half day to gradually cool or warm the HDD to room temperature before unpacking it.

[Notes on packing for shipment]

- When returning a defective HDD for analysis, handle with care as if it were a good product. Otherwise, the results of analysis may not be correct.
- When packing, use the antistatic bag and packing materials in which the repair part for service was delivered. Attach a copy of the slip for service or a memo stating symptoms in as much detail as possible.

■ Outline and part No. of the HDDs

Model Name	Capacity	Maxtor	
		Pioneer's Part No. (for service)	Manufacturer's Part No.
PRV-LX10	120 Gbyte	VXF1016	4R120L*

Pioneer's part No. is not stamped.

- When replacing the HDD, carefully check the capacity and manufacturer's part No. on the part label to avoid replacing with a similar but inappropriate product. You can also check the model No. of the mounted HDD on the Service mode screen.
- Do NOT use repair parts, such as commercially available HDDs, other than those designated above, as their functions, performance or reliability cannot be guaranteed.

• Maxtor

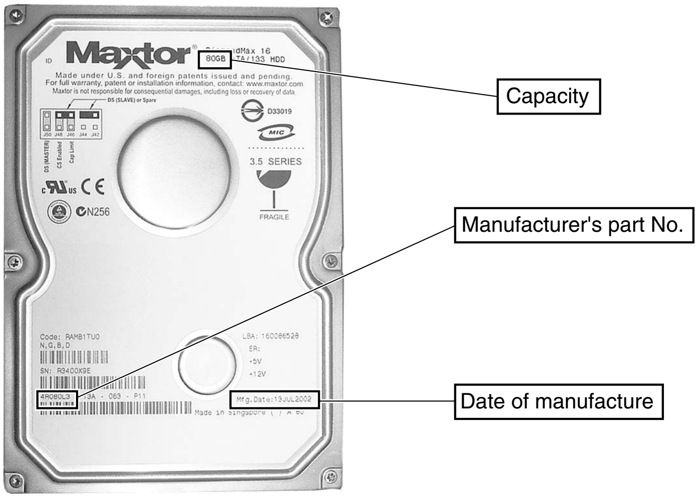


Fig. 1 Location of the data on capacity and part No. of the HDD

■ JP pin setting for the HDD

The factory jumper-pin setting for the HDD is CS (Cable Select), as shown in the figure below.
When installing the HDD to the unit, set the jumper pin to the MASTER position.

• Maxtor

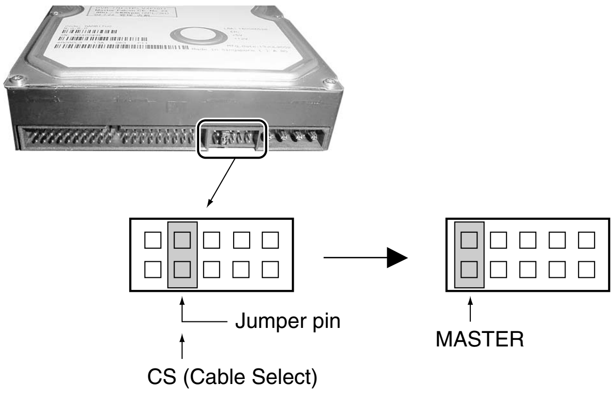


Fig. 2 Setting of the jumper pin

7.1.11 HDD REPLACEMENT PROCEDURES

■ In a case where the HDD being installed operates normally, but is to be replaced for maintenance, etc. → Perform copying of HDD data.

1. Obtain an HDD copying disc for the PRV-LX10 and a new HDD *1. (Do NOT connect the HDD in this step.)

2. In Standby mode, while holding the [ENTER] button pressed, press the [STANDBY/ON] button on the front panel to start up the unit.

3. When the tray for Drive 1 opens, load the HDD copying disc for the PRV-LX10 into it. Then hold the [ENTER] button on the front panel pressed until the beep sounds.

4. After the unit is automatically shut off, set the POWER switch on the rear panel to OFF. Then make preparations for the HDD, as follows:
   IMPORTANT: During the following procedures, be sure NOT to impart shock to the HDD.
   (1) Remove the built-in HDD from the unit. Change the position of the jumper pin from MASTER to SLAVE. Connect the IDE cable for Drive 2 ("Secondary" cable) and the power cable.
   IMPORTANT: Be careful that the PCB block of the HDD does not come into contact with any other electric circuit block (to avoid short-circuiting of the HDD).
   (2) Set the jumper pin of the new HDD to the MASTER position and install the new HDD in the place where the built-in HDD was. Connect the IDE cable ("Primary" cable) and the power cable.

5. Set the POWER switch on the rear panel to ON then press the [STANDBY/ON] button on the front panel to turn the unit on. The HDD copying disc (GGV1176) for the PRV-LX10 is automatically started, and the following message is displayed on the monitor screen:

```
Welcome to Pioneer DVD Recorder HDD Backup Program
Data = 2003.09.02....

Press appropriate front panel button for 2 seconds
 followed by [ENTER] button for 2 seconds.
   1)[UP]      Full Copy (Secondary/Slave –> Primary/Master)
   2)[DOWN]   Quit
```

6. Hold the [UP] button on the front panel pressed at least 2 seconds then hold the [ENTER] button pressed at least 2 seconds. Copying of data from the old HDD to the new HDD starts. (The time required for copying varies depending on the amount of user data, but the approximate maximum time is 2 hours.)

7. After copying is completed, the disc is automatically ejected, then the unit restarts. Check operations after startup is completed. If there is no problem, turn off the unit.

8. Set the POWER switch on the rear panel to OFF. Disconnect the old HDD connected to the cables from Drive 2.

9. Check the cable connections.
   Note: If Drive 2 is available, make the connections as they were originally made.

*1 If an HDD that has already been used with another unit is to be used as a new HDD (copy-destination HDD), copying cannot be done if there are project data on that HDD. In this case, first delete all project data from the HDD, using the Function menus. When using a reused HDD without project data, copying of only the user's data becomes possible.
In this case, the following optional menu is added in the message displayed in Step 5:

```
   3)[LEFT]   DATA Copy (Secondary/Slave –> Primary/Master)
```

■ In a case where the HDD being installed does not physically operate → After replacement of the HDD, reinstall the software program.

1. After checking that the POWER switch on the rear panel is set to OFF, replace the built-in HDD with a new one.
   IMPORTANT: During the following procedures, be sure NOT to impart shock to the HDD.

2. Using the forced-eject pin (DEX1008), open the tray for Drive 1 then load the OS installation disc for the PRV-LX10 into the tray. **Note:** Push the tray in a little then turn on the power.

3. Following the procedures for "OS installation," install the OS, using the OS installation disc (GGV1177) for the PRV-LX10. See "7.1.14 How to Install the OS or Program."

4. Following the procedures for "Program installation," install the program, using the Program installation disc (GGV1234, Ver. 3.01) for the PRV-LX10. See "7.1.14 How to Install the OS or Program."

Note: Before discarding an old HDD, physically destroy it so that the data on it cannot be extracted.

7.1.12 HOW TO CHECK THE HDD

• How to check the HDD that is mounted on the product is described below:

① Select Function Menu, Setup, System, HDD Tools, then Check, and execute. "HDD File System Check" is executed, and recoverable errors are corrected. The results can be checked on the monitor screen.

② The HDD check can also be performed from the following menu displayed during OS installation:
(1) [UP] : Full Install (Delete all data)
(2) [DOWN] : Install (Keep user's data)
(3) [LEFT] : HDD File System Check
(4) [RIGHT] : HDD Test (Bad Block Check)
(5) [SCAN R] : Quit

Select (3) or (4), and execute. The result can be checked on the monitor screen.
For details on how to enter the menu, see "OS installation" in "7.1.14 How to Install the OS or Program."

Notes:
- An HDD Test (4 above) may take 10 hours or more, depending on the capacity of the HDD.
- If the menu does not appear in the process of the normal OS installation procedures, change the setting of BIOS "First Boot Device" to CD-ROM then restart the unit from the OS installation disc.
- In the above case, after the HDD Check is finished, be sure to return the setting of BIOS "First Boot Device" to HDD.

7.1.13 CLEANING

Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

• Pickup

Position to be cleaned	Cleaning tools
Pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

• Fan

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

7.1.14 HOW TO INSTALL THE OS OR PROGRAM

■ OS installation

① While holding the [ENTER] button on the front panel pressed, press the [STANDBY/ON] button to start the unit.

② "PGM-INSTALL" is displayed on the FL display, and the tray for the DVD Drive opens.

Display on the monitor screen:

```
---------------------------------------
- PRV-LX10 Program Installer -
---------------------------------------
PLEASE INSERT INSTALLATION CD IN DRIVE ONE,
THEN PRESS [ENTER] BUTTON ON FRONT PANEL
FOR 2 SECONDS TO BEGIN UPDATE.
>>
```

③ Load the OS installation disc into the tray then press the [ENTER] button. The tray will close, and changing of the BIOS settings starts.

Display on the FL display:

```
DOWNLOAD FULL
```

Display on the monitor screen:

```
=======================
= PRV-LX10 Program Installer =
=======================

The PRV-LX10 will automatically start power off
after 5 seconds later.
Please press the power button after power off.

PLEASE WAIT A MINUTE.
Completed changing the BIOS settings.
```

④ When the unit is automatically turned off, turn it back on.

⑤ If the following menu* appears on the screen, select the operation you wish. Use the corresponding buttons on the front panel for selection. (For example, press the [UP] button to select full installation.)

```
(1) [UP]        : Full Install (Delete all data)
(2) [DOWN]      : Install (Keep user's data)
(3) [LEFT]      : HDD File System Check
(4) [RIGHT]     : HDD Test(Bad Block Check)
(5) [SCAN R]    : Quit
```

(1) [UP]: Full Install (Delete all data)
- The whole HDD is formatted, then the OS is installed.
- All data, including the user data, are deleted. Installation is completed in about 10 minutes, then rebooting starts.
- During installation, the progress is displayed on the screen. If the screen does not change after about 15 minutes, or if the installation process has not been completed after about 30 minutes, turn off the power and restart the OS installation process. If installation cannot be completed on the second try, replace the HDD.

IMPORTANT!: After OS installation, be sure to install the program.

(2) [DOWN]: Install (Keep user's data)
- Only the OS is installed, leaving the user's data intact. This does not mean, however, that the integrity of the user's data is guaranteed.
- Installation is completed in about 8 minutes, then rebooting starts.
- During installation, the progress is displayed on the screen. If the screen does not change after about 15 minutes, or if the installation process has not been completed after about 30 minutes, turn off the power and restart the OS installation process. If installation cannot be completed on the second try, replace the HDD.

IMPORTANT!: After OS installation, be sure to install the program.

(3) [LEFT]: HDD File System Check
- A logical check of all files on the HDD is performed, then the results are displayed.
- To return to the menu, press the [ENTER] button on the front panel.

(4) [RIGHT]: HDD Test (Bad Block Check)
- A physical check of the HDD is performed, then the results are displayed. It must be noted that this test takes 10 hours or more.
- To return to the menu, press the [ENTER] button on the front panel.

(5) [SCAN R]: Quit
- To terminate the installation program and start rebooting

***With some installation discs for production lines, full installation starts automatically, without displaying the menu.**

⑥ Execute the selected item.
- After execution, rebooting starts automatically.

⑦ Turn off the power.

⑧ Start up the unit by pressing the [STANDBY/ON] button on the front panel, then make sure that the version of the OS is updated, using the Debug screen (ESC + DISP).

⑨ Proceed to program installation.

■ Program installation

① Hold the [ENTER] button on the front panel pressed and press the [STANDBY/ON] button to start up the unit.

② "PGM-INSTALL" is displayed on the FL display, and the tray for the DVD drive opens.

Display on the monitor screen:

```
----------------------------------------
- PRV-LX10 Program Installer -
----------------------------------------
PLEASE INSERT INSTALLATION CD IN DRIVE ONE,
THEN PRESS [ENTER] BUTTON ON FRONT PANEL
FOR 2 SECONDS TO BEGIN UPDATE.
>>
```

③ Load the program installation disc (GGV1234, Ver. 3.01) into the tray and press the [ENTER] button on the front panel. The tray will close, and upgrading of the version starts.

Display on the FL display:

```
DOWNLOAD FULL
```

Display on the monitor screen:

```
==============================
= PRV-LX10 Program Installer =
==============================

Setup Directories ...
Start Program Download ...
= Setup Drives. =        --> The message changes according to the progress.
====                     --> Progress bar
```

④ When installation is finished, the PRV-LX10's startup display appears on the monitor screen, the tray for DVD Drive opens, and "DOWNLOAD COMPLETED" is displayed on the FL display. Then the unit is automatically turned off.

⑤ Start up the unit by pressing the [STANDBY/ON] button on the front panel, then make sure that the version of the program is updated, using the Debug screen (ESC + DISP).

Note: If a program whose version is older than the currently installed one is to be installed, the following message is displayed:

On the monitor screen:

```
Current Version : 1.07
Installation CD Version : 1.05
Newer version programs have already been installed.
Press appropriate front panel button for 2 seconds
followed by [ENTER] button for 2 seconds.
(1) [ UP ] Force to install
(2) [ DOWN ] Quit.
>>
```

- To continue the installation process, press the [UP] button then the [ENTER] button on the front panel.

7.1.15 TROUBLE SHOOTING

Operation	Sequence	Symptom	Check Item	Measures to be taken
Startup	From power on, supply of STB + 5 V power, to startup of the FL microcomputer STB_LED: Orange	The unit does not enter Standby mode even if the POWER switch is set to ON.	Check the following connections: The LED (D10) for STB +5 V power supply on the PWRB remains unlit: Disconnect the cable that connects the PWRB (CN3) and FLKB (CN501) then turn on the power. → D10 lights up. Disconnect the cable that connects the PWRB (CN3) and FLKB (CN501) then turn on the power. → D10 remains unlit. The LED (D10) for STB +5 V power supply on the PWRB is lit:	Check the connections for the ATX power supply, PWRB, and FLKB: Reconnect the 20-pin cable of the ATX power supply (DXF1005), or replace the ATX power supply. If it is suspected that the FLKB (DWZ1164) is defective, replace it. If it is suspected that the PWRB (DWZ1129) is defective, replace it. Replace ICP (IC8) on the PWRB (DWZ1129). Reconnect or replace the 20-pin cable (DKP3637) between the PWRB (CN3) and FLKB (CN501). If it is suspected that the FLKB (DWZ1164) is defective, replace it.
	STB_SW ON	Even if the STB switch is pressed, its indicator remains lit in orange, and the unit does not start.	Check the following connections: The PWR_SW on the PWRB is set to L: The LED (D19) for STB +5 V power supply for the MB on the PWRB remains unlit. The PWR_SW on the PWRB is set to H: The LED (D19) for STB +5 V power supply for the MB on the PWRB is lit.	Check the connections for the FLKB, PWRB, and MB: Reconnect or replace the 20-pin cable (DKP3637) between the PWRB and FLKB. If it is suspected that the FLKB (DWZ1164) is defective, replace it. If it is suspected that the PWRB (DWZ1129) is defective, replace it. Reconnect or replace the 20-pin cable (DKP3657) between the MB and PWRB. If it is suspected that the MB (DXF1007) is defective, replace it.
	STB_LED: Green	Even if the STB switch is pressed, its indicator remains lit in green, and the unit does not start.	Check the following connections: PWR_SW2 on the PWRB is set to L: PWR_SW2 on the PWRB is set to H: The LEDs (D11, D12, and D13) for power supply on the PWRB remain unlit. The LEDs (D11, D12, and D13) for power supply on the PWRB are lit.	Check the connections for the ATX power supply, PWRB, MB, and FLKB: Reconnect or replace the 20-pin cable (DKP3637) between the PWRB and FLKB. If it is suspected that the FLKB (DWZ1164) is defective, replace it. Reconnect or replace the 6-pin to 9-pin cable (DKP3635) between the MB and PWRB. If it is suspected that the MB (DXF1007) is defective, replace it. Reconnect the 20-pin cable of the ATX power supply (DXF1005), or replace the ATX power supply. Reconnect or replace the 20-pin cable (DKP3637) between the PWRB (CN3) and FLKB (CN501). If it is suspected that the FLKB (DWZ1164) is defective, replace it. If it is suspected that the PWRB (DWZ1129) is defective, replace it.
	Startup of the ATX power, start of the FL display		Misc.: Black screen (POST screen not displayed)	Reinstall or replace the CPU and the memory module. Clear the data in the CMOS RAM for BIOS (by short-circuiting Pins 1 and 2 of the JP14 jumper switch on the MB).
	BIOS startup	Even if the STB switch is pressed, the message on the FL display remains "PLEASE WAIT," and the unit does not start.	Check the connections (for power supply)	Check the connections between the ATX power supply and the HDD, or among the ATX power supply, PWRB, and MB: Reinstall the power supply for peripheral devices between the ATX power supply and the HDD. Or replace the ATX power supply. Reconnect or replace the 4-pin cable (DKP3656) for power supply for the CPU on the MB (PWR_P4).
			Check the connections (for signals)	Check the connections between the MB and HDD, or the MB and FLKB: Reconnect or replace the IDE flat cable (DKP3647) between the MB and HDD. Reconnect or replace the 3-pin to 10-pin cable (DKP3645) between MB and FLKB (CN504).
	Searching for the boot drive		VGA screen display "CMOS checksum error - Defaults loaded" "Non-System Disk or Disk error, Replace and press any key when ready" "Detecting IDE drivers . . . " "DISK BOOT ERROR, INSERT SYSTEM DISK AND PRESS ENTER"	If the battery is discharged (2.5 V DC or less), replace it. If it is suspected that the MB (DXF1007) is defective, replace it. If checking of BIOS data fails, press the F1 key then reload the BIOS data. If the data on the HDD are damaged, reinstall the data. If it is suspected that the HDD (VXF1015) is defective, replace it. The settings for the connected HDD or DVD Drive are wrong: If it is suspected that the HDD (VXF1015) is defective, replace it. If it is suspected that the DVD Drive (DVR-105-PLX) is defective, replace it. Check on the BIOS screen if the HDD is recognized: Set the jumper pin of the HDD to MASTER. If it is suspected that HDD (VXF1015) is defective, replace it.
			Beep sounds: One long Two long Two short-long combinations	This means a memory error. Reinstall or replace the DDR memory module. This means a memory error. Reinstall or replace the DDR memory module. This means a video error. If it is suspected that the MB (DXF1007) is defective, replace it.
			Misc.: Noise from the HDD	If it is suspected that the HDD (VXF1015) is defective, replace it. If it is suspected that the FLKB (DWZ1164) is defective, replace it. If it is suspected that the MB (DXF1007) is defective, replace it.

Operation	Sequence	Symptom	Check Item	Measures to be taken
Startup	Execution of startup script	The following message is displayed on the FL display: "FSCK-ERROR BOOT/USR"		Reinstall the OS (Installation leaving the user's data intact is also possible).
		The following message is displayed on the FL display: "FSCK-ERROR HOME"		Reinstall the OS (Installation leaving the user's data intact is also possible).
		The following message is displayed on the FL display: "FSCK-ERROR VAR"		Reinstall the OS (Installation leaving the user's data intact is also possible).
		The following message is displayed on the FL display: "POWER ON FSCK-ERROR"		Reinstall the OS (Installation leaving the user's data intact is also possible).
		The following message is displayed on the FL display: "NO BOARD ENCODER"	Check the connections. The "Xilinx_STA" LED on the PCIB remains unlit during startup. The "Encode_STA" LED on the PCIB remains lit during startup.	Check attachment of the PCI card to the DECB and MB. It is suspected that the PCIB (DWP1080) is defective replace it. It is suspected that the PCIB (DWP1080) is defective, replace it.
			Misc.: Check the power of the PCIB (DWP1080): D2101: The LED for -12 V power supply remains unlit D2102: The LED for +12 V power supply remains unlit D2301: The LED for +5 V power supply remains unlit	Check the LED for power supply on the PCIB (DWP1080). It is suspected that the PCIB (DWP1080) is defective, replace it. It is suspected that the PCIB (DWP1080) is defective, replace it. It is suspected that the PCIB (DWP1080) is defective, replace it.
			The message "!!!!!!!!!!NO ENCODER BOARD ERROR AGAIN!!!!!!!!!!" is displayed in the log file.	Reinstall the PCIB (DWP1080).
		The following message is displayed on the FL display: "NO BOARD ENCODER"	Check the connections.	Check attachment of the PCI card to the DECB and MB.
			The "Xilinx_STA" LED on the DECB remains unlit during startup. The "Decode_STA" LED on the DECB remains lit during startup.	It is suspected that the DECB (DWP1081) is defective,replace it. It is suspected that the DECB (DWP1081) is defective,replace it.
			Misc.: Check the power supply for the DECB (DWP1081): The LED (D1137) for +1.8 V power supply is unlit.	Check the LED for power supply on the DECB (DWP1081). It is suspected that the DECB (DWP1081) is defective,replace it. If it is suspected that ICP (IC1351) is broken, replace it.
			The message "!!!!!!!!!!NO DECODER BOARD ERROR AGAIN!!!!!!!!!!" is displayed in the log file.	Reinstall the DECB (DWP1081).
	Starting application	Even if the STB SW is pressed, the message on the FL display remains "000. . . ." and the unit does not start.	Check the connections:	Check the connections between the AVIB and PCIB. Reconnect the 50-pin FFCs (DDD1226) that connect the AVIB (CN3001 and CN3002) and PCIB (CN2103 and CN2104), or replace them. Reconnect or replace the 4-pin cable (DKP3640) that connects the AVIB (CN3301) and PCIB (CN2101).
			The "Xilinx_STA" LED on the AVIB remains unlit during startup. The "Encode_STA" LED on the AVIB remains lit during startup. The "Xilinx_STA" LED on the PCIB remains unlit during startup. The "Encode_STA" LED on the PCIB remains lit during startup.	If it is suspected that the AVIB (DWV1198) is defective, replace it. If it is suspected that the AVIB (DWV1198) is defective, replace it. If it is suspected that the AVIB (DWV1198) is defective, replace it. If it is suspected that the AVIB (DWV1198) is defective, replace it.
	Completion of application startup		Misc.: Check the positions of the jumper pins in DVD Drive 1 and Drive 2.	Set the jumper pin of Drive 1 to MASTER and that of Drive 2 to SLAVE.

Operation	Symptom	Check Item	Measures to be taken
Recording/ playback	No input to the RCA, XLR, CVBS, S, YCbCr, and DV connectors (signals cannot be output or recorded during preview or recording)	Check the connections (for power supply): The LEDs for power supply (D3201, D3202, D3203, and D3204) on the AVIB remain unlit. When the AVIB (CN3201) connector is disconnected, no DC voltage is applied to the PWRB connector pin.	Check the connections for the PWRB, AVIB and JKIB, and connections between MB and PCIB: Reconnect or replace the 14-pin cable (DKP3636) between PWRB (CN2) and AVIB (CN3201). If it is suspected that the PWRB (DWZ1129) is defective, replace it.
		When the AVIB (CN3201) connector is disconnected, DC voltage is applied to the PWRB connector pin.	If it is suspected that the AVIB (DWV1202) is defective, replace it.
		The LEDs for power supply (D7619, D7620, D7621, and D7622) on the JKIB remain unlit. When the JKIB (CN7613) connector is disconnected, no DC voltage is applied to the AVIB connector pin.	Reconnect or replace the 7-pin cable (DKP3639) between AVIB (CN3201) and JKIB (CN7613). If it is suspected that the AVIB (DWV1202) is defective, replace it.
		When the JKIB (CN7613) connector is disconnected, DC voltage is applied to the AVIB connector pin.	If it is suspected that JKIB (DWZ1126) is defective, replace it.
		The LEDs for power supply (D2101, D2102, and D2301) on the PCIB remain unlit.	Securely reinstall the PCIB (DWP1080) on the MB. If it is suspected that the PCIB (DWP1080) is defective, replace it.
		Check the connections (for AV signals):	Check the connections for the JKIB, AVIB, and PCIB:
	No input to the RCA and XLR No input to the CVBS, S, and YCbCr connectors	No analog signal input to the AVIB connector pin Analog signal is input to the AVIB connector pin.	Reconnect or replace the 20-pin FFC (DDD1228) that connect AVIB (CN3501) and JKIB (CN7611). If it is suspected that JKIB (DWZ1126) is defective, replace it. If it is suspected that the AVIB (DWV1202) is defective, replace it.
		The "Xilinx_STA" LED on the AVIB remains lit during encoding. The "Encode_STA" LED on the PCIB randomly lights during encoding.	Reconnect or replace the two 50-pin FFCs (DDD1226) that connect the AVIB (CN3001 and CN3002) and PCIB (CN2103 and CN2104). If it is suspected that the AVIB (DWV1202) is defective, replace it. If it is suspected that the PCIB (DWP1080) is defective, replace it.
	No input to the DV connector "NO DV INPUT" displayed	The "Xilinx_STA" LED on the AVIB remains lit during encoding. The "Encode_STA" LED on the PCIB randomly lights during encoding.	Reconnect or replace the 6-pin cable (DKP3658) between the AVIB (CN4001) and JKIB (CN7402). If it is suspected that the AVIB (DWV1202) is defective, replace it. If it is suspected that the PCIB (DWP1080) is defective, replace it.
		Check which of the following will be the case: No THRU output even with the SOURCE MONITOR setting	If it is suspected that JKIB (DWZ1126) is defective, replace it. If it is suspected that the JKOB (DWZ1127) is defective, replace it.
		The THRU output is available with the SOURCE MONITOR setting. Playback is possible.	If it is suspected that the AVIB (DWV1202) is defective, replace it. If it is suspected that JKIB (DWZ1126) is defective, replace it.
		Recording is possible.	If it is suspected that the DECB (DWP1081) is defective, replace it.
		Check the format. Check the input source.	Check the format of connected devices. If the input source is copy-protected, it cannot be recorded.
	No output from the RCA, XLR, SPDIF, CVBS, S, YCbCr, and DV connectors (signals cannot be output during playback)	Check the connections (for power supply): The LEDs for power supply (D3201, D3202, D3203, and D3204) on the AVIB remain unlit. When the AVIB (CN3201) connector is disconnected, no DC voltage is applied to the PWRB connector pin.	Check the connections for the PWRB, AVIB, and JKIB, and connections between the MB and DECB: Reconnect or replace the 14-pin cable (DKP3636) between PWRB (CN2) and AVIB (CN3201). If it is suspected that the PWRB (DWZ1129) is defective, replace it.
		When the AVIB (CN3201) connector is disconnected, DC voltage is applied to the PWRB connector pin.	If it is suspected that the AVIB (DWV1202) is defective, replace it.
		The LEDs for power supply (D7619, D7620, D7621, and D7622) on the JKIB remain unlit. When the JKIB (CN7613) connector is disconnected, no DC voltage is applied to the AVIB connector pin.	Reconnect or replace the 7-pin cable (DKP3639) between AVIB (CN3201) and JKIB (CN7613). If it is suspected that the AVIB (DWV1202) is defective, replace it.
		When the JKIB (CN7613) connector is disconnected, DC voltage is applied to the AVIB connector pin.	If it is suspected that JKIB (DWZ1126) is defective, replace it.
		The LED (D1137) for power supply on the DECB remains unlit.	Securely reinstall the DECB (DWP1081) on the MB. If it is suspected that the DECB (DWP1081) is defective, replace it.
		Check the connections (for AV signals):	Check the connections for the DECB, JKIB, and JKOB:
	No output from the RCA, XLR, and HP connectors No output from the CVBS, S, and YCbCr connectors	The "Decode_STA" LED (D1182) on the DECB remains unlit during decoding. The "Decode_STA" LED (D1182) on the DECB flashes during decoding.	Reconnect or replace the 30-pin FFC (DDD1229) that connects the DECB (CN1811) and JKIB (CN7801). If it is suspected that the DECB (DWP1081) is defective, replace it. If it is suspected that JKIB (DWZ1126) is defective, replace it.
	No output from the DV connector	Check if there is analog output other than the DV output. → No	Reconnect or replace the 6-pin cable (DKP3658) between the AVIB (CN4001) and JKIB (CN7402). Reconnect or replace the 30-pin FFC (DDD1229) that connects the AVIB (CN1651) and DECB (CN6002).
		Check if there is analog output other than the DV output. → Yes	Reconnect or replace the 14-pin cable (DKP3636) between PWRB (CN2) and AVIB (CN3201). If it is suspected that the AVIB (DWV1202) is defective, replace it.
		The THRU output is available with the SOURCE MONITOR setting.	Reconnect or replace the 30-pin FFC (DDD1229) that connects the DECB (CN1811) and JKIB (CN7801). If it is suspected that JKIB (DWZ1126) is defective, replace it.
		No THRU output even with the SOURCE MONITOR setting.	Reconnect or replace the 30-pin FFC (DDD1230) that connects the JKIB (CN7802) and JKOB (CN7851). If it is suspected that the JKOB (DWZ1127) is defective, replace it.

Operation	Symptom	Check Item	Measures to be taken
Recording/ playback	No output from the CVBS or S terminal	Check to see if the Progressive signal is set to be output.	To change the setting, run the unit idle then press the DOWN then STOP keys.
	No video or audio output even with the SOURCE MONITOR setting	Check input/output settings. The LEDs (D3201, D3202, D3203, and D3204) for power supply on the AVIB remain unlit. Disconnect the 7-pin cable that connects the AVIB (CN3202) and JKIB (CN7613). → No DC voltage applied to the terminals Disconnect the 7-pin cable that connects the AVIB (CN3202) and JKIB (CN7613). → DC voltage applied to the terminals The LEDs (D7619, D7620, D7621, and D7622) for power supply on the JKIB remain unlit. Is the THRU_SW signals from the AVIB switched? Disconnect the 20-pin FFC cable that connects the AVIB (CN3501) and JKIB (CN7611). → THRU_SW signal from the AVIB is set to L. Disconnect the 20-pin FFC cable that connects the AVIB (CN3501) and JKIB (CN7611). → THRU_SW signal from AVIB is set to H.	On the Function menu, set AV INPUT to CVBS or RCA, then input the corresponding signal. Reconnect or replace the 14-pin cable (DKP3636) between the PWRB (CN2) and AVIB (CN3201). If it is suspected that the AVIB (DWV1202) is defective, replace it. If it is suspected that the JKIB (DWZ1126) is defective, replace it. Reconnect or replace the 7-pin cable (DKP3639) between the AVIB (CN3202) and JKIB (CN7613). If it is suspected that the JKIB (DWZ1126) is defective, replace it. Reconnect or replace the 20-pin FFC (DDD1228) that connects the AVIB (CN3501) and JKIB (CN7611). If it is suspected that the AVIB (DWV1202) is defective, replace it. If it is suspected that the JKIB (DWZ1126) is defective, replace it. Reconnect or replace the 30-pin FFC (DDD1230) that connects the JKIB (CN7802) and JKOB (CN7851). If it is suspected that the JKOB (DWZ1127) is defective, replace it.
	No HP audio output	Check the connections (for power supply): The LEDs (D3201, D3202, D3203, and D3204) for power supply on the AVIB remain unlit. Disconnect the AVIB (CN3201) connector. → No DC voltage applied to the PWRB connector pin Disconnect the AVIB (CN3201) connector. → DC voltage applied to the PWRB connector pin The LEDs (D7619, D7620, D7621, and D7622) for power supply on the JKIB remain unlit. Disconnect the AVIB (CN3202) connector. → No DC voltage applied to the AVIB connector pin Disconnect the AVIB (CN3202) connector. → DC voltage applied to the AVIB connector pin The LED (D661) for power supply on the HPVB remain unlit. Disconnect the HPVB (CN7701) connector. → No DC voltage applied to the JKIB connector pin Disconnect the HPVB (CN7701) connector. → DC voltage applied to the JKIB connector pin	Check the connections for the PWRB, AVIB, JKIB, and HPVB: Reconnect or replace the 14-pin cable (DKP3636) between the PWRB (CN2) and AVIB (CN3201). If it is suspected that the PWRB (DWZ1129) is defective, replace it. If it is suspected that the AVIB (DWV1202) is defective, replace it. Reconnect or replace the 7-pin cable (DKP3639) between the AVIB (CN3202) and JKIB (CN7613). If it is suspected that the AVIB (DWV1202) is defective, replace it. If it is suspected that the JKIB (DWZ1126) is defective, replace it. Reconnect or replace the 8-pin cable (DKP3643) between the JKIB (CN7701) and HPVB (CN661). If it is suspected that the JKIB (DWZ1126) is defective, replace it. If it is suspected that the HPVB (DWZ1128) is defective, replace it.
		Check the connections (for audio signals): Audio not output from the HP, RCA, and XLR connectors Audio not output only from the HP connector	Check the connections for the DECB, JKIB, and HPVB: Reconnect or replace the 30-pin FFC (DDD1229) that connects the DECB (CN1811) and JKIB (CN7801). If it is suspected that the DECB (DWP1081) is defective, replace it. If it is suspected that the JKIB (DWZ1126) is defective, replace it. Reconnect or replace the 8-pin cable (DKP3643) between the JKIB (CN7701) and HPVB (CN661). If it is suspected that the HPVB (DWZ1128) is defective, replace it.
	DVD recording/playback impossible	Check the connections: Press Function, and check the lower-right part of the screen to see if the connected drive is recognized. No DVD1 indication No DVD2 indication	Check the connections between the MB and DVD_Drives 1-2, and between the ATX power supply and DVD_Drives 1-2. Reconnect or replace the IDE cable (DKP3671) between MB and DRV: If it is suspected that the DVD Drive 1 (DVR-105-PLX) is defective, replace it. If it is suspected that the DVD Drive 2 (DVR-105-PLX) is defective, replace it. Reinstall the power supply for peripheral devices between the ATX power supply and the DVR. Or replace the ATX power supply.
		Check the media you use.	Use a DVD-R or DVD-RW disc whose standard is supported by this unit.
		Check the input source.	If the input source is copy-protected, it cannot be recorded.
	ENCODER ERROR "FF000002" is displayed on the screen. Preview impossible	Check the connections.	Check the connections between the AVIB and PCIB: Reconnect or replace the two 50-pin FFCs (DDD1226) that connect AVIB (CN3001 and CN3002) and PCIB (CN2103 and CN2104). If it is suspected that the AVIB (DWV1202) is defective, replace it. If it is suspected that the PCIB (DWP1081) is defective, replace it.
	No synchronization with the external sync	Check the connections: The LEDs (D7925, D7926, and D7927) for power supply on the JKDB remain unlit. Disconnect the JKDB (CN7902) connector. → No DC voltage applied to the PCIB connector pin Disconnect the JKDB (CN7902) connector. → DC voltage applied to the PCIB connector pin Check the signals.	Check the connections between the PCIB and JKDB, and between the DECB and JKDB: Reconnect or replace the 11-pin cable (DKP3642) between the PCIB (CN2102) and JKDB (CN7902). If it is suspected that the PCIB (DWP1081) is defective, replace it. If it is suspected that the JKDB (DWZ1134) is defective, replace it. Reconnect or replace the 2-pin cable (DKP3638) between the DECB (CN1471) and JKDB (CN7941).

Operation	Symptom	Check Item	Measures to be taken
Misc	No operation possible with a USB device (mouse/keyboard) connected to one of the USB connector on the front panel	Check the connections: The LED (D681) for the power supply on the USBB remains unlit: Disconnect the USBB (CN684) connector. → No DC voltage applied to the PWRB connector pin Disconnect the USBB (CN684) connector. → DC voltage applied to the PWRB connector pin Check the USB signal.	Check the connections between the PWRB and USBB, and the MB and USBB. Reconnect or replace the 3-pin cable (DKP3655) for power supply between the PWRB (CN5) and USBB (CN684). If it is suspected that the PWRB (DWZ1129) is defective, replace it. If it is suspected that the USBB (DWZ1159) is defective, replace it. Reconnect or replace the 10-pin cable (DKP3646) for USB communication between the MB and USBB (CN681). If it is suspected that the MB (DXF1007) is defective, replace it. If it is suspected that the USBB (DWZ1159) is defective, replace it.
	Control from an external device through RS-422 impossible	Check the connections: The LEDs (D7925, D7926, and D7927) for the power supply on the JKDB remains unlit: Disconnect the JKDB (CN7902) connector. → No DC voltage applied to the PCIB connector pin Disconnect the JKDB (CN7902) connector. → DC voltage applied to the PCIB connector pin Check the settings and connected devices.	Check the connections among the PCIB, JKDB, and 422IB: Reconnect or replace the 11-pin cable (DKP3642) between the PCIB (CN2102) and JKDB (CN7902). If it is suspected that the PCIB (DWP1081) is defective, replace it. If it is suspected that the JKDB (DWZ1134) is defective, replace it. Reconnect or replace the 6-pin cable (DKP3644) between the JKDB (CN7903) and 422IB (CN7952). The external RS-422 device may be one that cannot control this unit. → Refer to the Web site of Pioneer.
	Control of an external device through RS-422 impossible	Check the connections: The LEDs (D7925, D7926, and D7927) for the power supply on the JKDB remains unlit: Disconnect the JKDB (CN7902) connector. → No DC voltage applied to the PCIB connector pin Disconnect the JKDB (CN7902) connector. → DC voltage applied to the PCIB connector pin Check the settings and connected devices.	Check the connections between the PCIB and JKDB: Reconnect or replace the 11-pin cable (DKP3642) between the PCIB (CN2102) and JKDB (CN7902). If it is suspected that the PCIB (DWP1081) is defective, replace it. If it is suspected that the JKDB (DWZ1134) is defective, replace it. The external RS-422 device may be one that this unit cannot control.→ Refer to the Web site of Pioneer.
	LAN communication impossible	Check the connections. Check the settings. The LINK LED (yellow) corresponding to the LAN terminal does not light.	Connect the unit to a router, etc. with a straight cable. If NETWORK is set to OFF, set it to ON. If it is suspected that the MB (DXF1007) is defective, replace it.
	No operation of DVD-DRV1 DRV2 operates instead of DRV1	Check the connections. Press [FUNCTION] key then check the lower-right part of the screen to see if the connected drives are recognized. Check if the correct keys are pressed.	Check the connections between the MB and DVD_Drive 1, and between the ATX power supply and DVD_Drive 1. Reconnect the 4-pin power cable for the DVD-Drive 1. Reconnect or replace the IDE cable (DKP3671) between the MB and Drive 1. If it is suspected that the DVD Drive 1 (DVR-105-PLX) is defective, replace it. Reconnect or replace the 6-pin FFC (DDD1231) that connects the FLKB (CN502) and DRV1B (CN631).
	No operation of DVD-DRV2	Check the connections. Press [FUNCTION] key then check the lower-right part of the screen to see if the connected drives are recognized. Check if the correct keys are pressed.	Check the connections between the MB and DVD_Drive 2, and between the ATX power supply and DVD_Drive 2. Reconnect the 4-pin power cable for the DVD-Drive 2. Reconnect or replace the IDE cable (DKP3671) between the MB and Drive 2. If it is suspected that the DVD Drive 2 (DVR-105-PLX) is defective, replace it. Reconnect or replace the 6-pin FFC (DDD1231) that connects the KEYB (CN602) and DRV2B (CN641).
	Key input disabled, or malfunctioning	Check the connections: It is suspected that the key signals from another device remain to be input to FL UCOM (IC501) and that signals from the corresponding keyboard are not accepted. Check the key input from the remote control unit for service: As each segment on the FL display corresponds to a particular key on the remote control unit for service. If any segment on the FL display was already unlit, there had already been key input.	Check the connections among the FLKB, KEYB, DRV1B, and DRV2B: Reconnect or replace the 25-pin FFC (DDD1232) that connects the FLKB (CN503) and KEYB (CN601). Reconnect or replace the 25-pin FFC (DDD1232) that connects the FLKB (CN503) and KEYB (CN601). Reconnect or replace the 6-pin FFC (DDD1231) that connects the KEYB (CN602) and DRV2B (CN641). To enter Front-Panel-Button-Input Test mode, press the [ESC], [TEST], then [TV/LDP] keys, in that order. To quit Test mode, press the [ESC] key. Repair/replace the Assy corresponding to the inoperable key. FLKB (DWZ1164): STB, Disp, Func, Function operations (×5) KEYB (DWZ1157): Drv_Sel, Preview, Main operations (×8) DRV1B (DWZ1160): Drv1_Eject DRV2B (DWZ1161): Drv2_Eject Repair/replace the Assy.

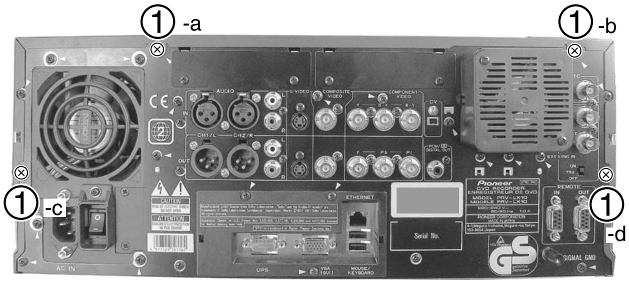
Operation	Symptom	Check Item	Measures to be taken
Misc.	Remote control unit not effective	Check the connections: Signals from the remote control unit may not be accepted because FL UCOM (IC501), which handles those signals, is occupied with other key signals that are kept input, although the remote control signals themselves are correctly processed in the FLKB.	Check the connections among the FLKB, KEYB, DRV1B, and DRV2B: Reconnect or replace the 25-pin FFC (DDD1232) that connects the FLKB (CN503) and KEYB (CN601). Reconnect or replace the 6-pin FFC (DDD1231) that connects the FLKB (CN502) and DRV1B (CN631). Reconnect or replace the 6-pin FFC (DDD1231) that connects the FLKB (CN602) and DRV2B (CN641).
		Check key input from the remote control unit for service: Key input from the remote control unit for service is not accepted. As each segment on the FL display corresponds to a particular key of the remote control unit for service. If any segment on the FL display was already unlit, there had already been key input.	To enter Front-Panel-Button-Input Test mode, press the [ESC], [TEST], then [TV/LDP] keys, in that order. To quit Test mode, press the [ESC] key. If it is suspected that the FLKB (DWZ1164) is defective, replace it. Repair/replace the Assy corresponding to the inoperable key. FLKB (DWZ1164): STB, Disp, Func, Function operation (x5) KEYB (DWZ1157): Drv_Sel, Preview, Main operation (x8) DRV1B (DWZ1160): Drv1_Eject DRV2B (DWZ1161): Drv2_Eject Repair/replace the Assy.
	All or part of the FL display is dark, or no FL display	Check the connections.	Check the connections between the PWRB and FLKB. Reconnect or replace the 20-pin cable (DKP3637) between the PWRB and FLKB.
		Check the display on the FL display, using the remote control unit for service.	To enter LED/FL Test mode, press the [ESC], [TEST], then [P.RUN] keys, in that order. To quit Test mode, press the [ESC] key. Check the FLKB (DWZ1164) or PWRB (DWZ1129) if all or part of the FL display is dark.
		Check the power supply for the FL display.	If the power supply from the PWRB (DWZ1129) is insufficient, replace the board. IC301 : -23.4V IC401 : -26.8V IC451 : -31.2V
		Misc.	The FL (DAW1019) on the FLKB (DWZ1164) is at the end of its life. Replace the FLKB board.
Installation	Installation not completed	Check the settings and connections.	Check the connections between the MB and HDD, MB and DVD_Drive 1, and between the MB and DVD_Drive 2: The HDD (VXF1015) must be connected to Master IDE_Primary. The DVD Drive 1 (DVR-105-PLX) must be connected to Master IDE_Secondary. The DVD Drive 2 (DVR-105-PLX) must be connected to Slave IDE_Secondary.
		"DISK BOOT FAILURE, INSERT SYSTEM DISK AND PRESS ENTER" is displayed on the VGA screen.	Reinstall the OS. After replacement of the HDD, reinstall the OS.
		"!!!!!!The root file system has been recovered!!!!!!!!" is displayed in the log file.	If the same message was recorded many times, reinstall the OS.
Parts	Inoperable CPU cooler	Check connections.	Check the connections between the MB and CPU_FAN, and among the ATX power supply, PWRB, and MB. Reconnect the connector for the CPU cooler.
		No power supply to the CPU cooler	Reconnect the 20-pin cable of the ATX power supply (DXF1005), or replace the ATX power supply. Reconnect or replace the 20-pin cable (DKP3657) between the MB and PWRB (CN4).
		The CPU cooler is defective.	Replace the CPU cooler.
	Inoperable fans	Check connections.	Check the connections between the PWRB and the two fans in the front section and one fan in the rear section: Reconnect or replace the 2-pin relay cable (DKP3676) that connects the PWRB (CN9) and the fan at the rear section. Reconnect the 2-pin cable that connects the PWRB (CN10) and Fan 1 at the front section, or replace the fan (AXM7014). Reconnect the 2-pin cable that connects the PWRB (CN11) and Fan 2 at the front section, or replace the fan (AXM7014).
		The FAN_DET LED (D24) on the PWRB remains unlit.	If it is suspected that the fan (AXM7014) is defective, replace it. If it is suspected that the PWRB (DWZ1129) is defective, replace it.
	The unit will not start even after MB replacement	Check connections.	Check the connections among the ATX power supply, PWRB, MB and FLKB. Check the connections between the MB and HDD.
		"CMOS checksum error-Defaults loaded" is displayed on the VGA screen.	If the BIOS data check fails, press the F1 key then reload the BIOS values.
		Check the date and time: At startup, press the [DEL] key to check the date and time on the BIOS screen (standard CMOS features). (The range of recognition at the APL level is from 2002.01.01 to 2037.12.31.)	Set the date and time according to the current Greenwich mean time.

7.1.16 DISASSEMBLY

Note 1 : Do NOT look directly into the pickup lens. The laser beam may cause eye injury.
Note 2 : When disassembling, be careful not to injure yourself with a burr, etc. Place the unit on a flat, level surface to perform servicing.
Note 3 : Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

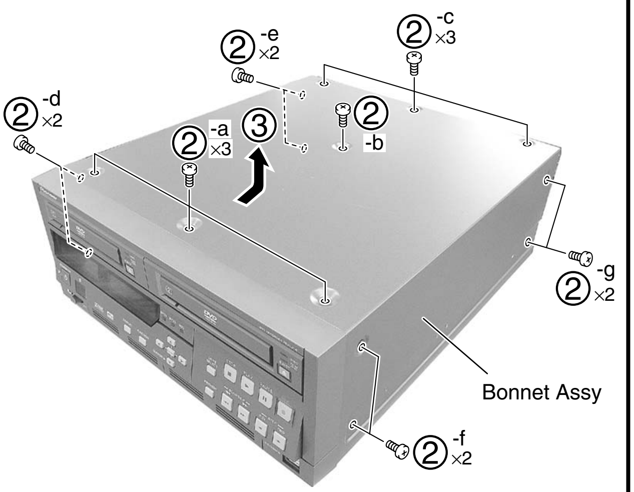
1 Bonnet Assy

① Remove the four screws.



• **Rear view**

② Remove the fifteen screws.
③ Remove the bonnet Assy.

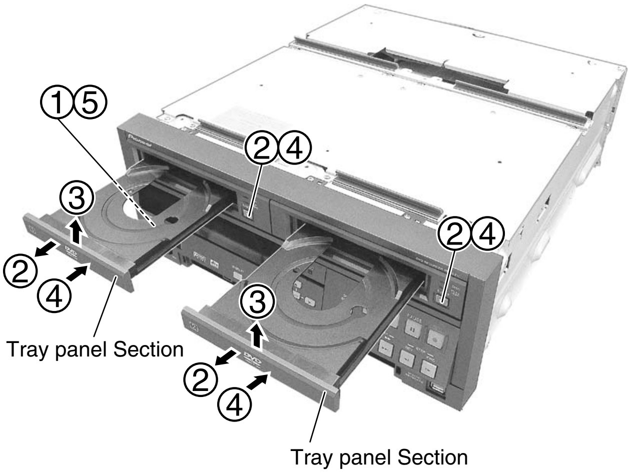

②-e ×2
②-c ×3
②-d ×2
②-a ×3
③
②-b
②-g ×2
Bonnet Assy
②-f ×2

Note:
When attaching the bonnet Assy, tighten the screws in the following order:
①-a, ①-b, ②-a to ②-g, ①-c, then ①-d.

2 Tray panel Section

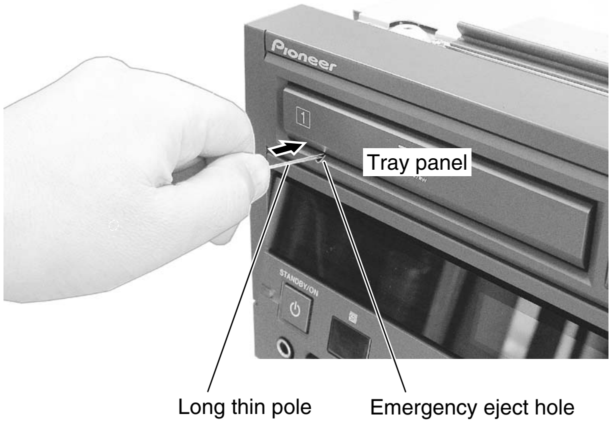
● Remove the bonnet Assy. (See step 1)

① Press the STANDBY/ON button to turn on the power.
② Press the two ≜ EJECT buttons to open the two trays.
③ Remove the two tray panel Section.
④ Press the two ≜ EJECT buttons to close the two trays.
⑤ Press the STANDBY/ON button to turn off the power.


①⑤
②④
③
②
④
Tray panel Section
②④
③
②
④
Tray panel Section

● How to open the tray when the power cannot be on

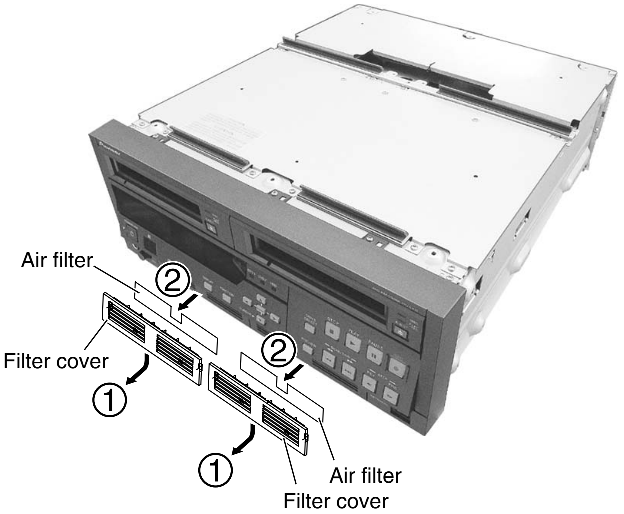
When the product cannot eject tray due to power failure or any other reasons, use a long thin pole and push the emergency eject hole under the tray panel to eject.


Tray panel
Long thin pole
Emergency eject hole

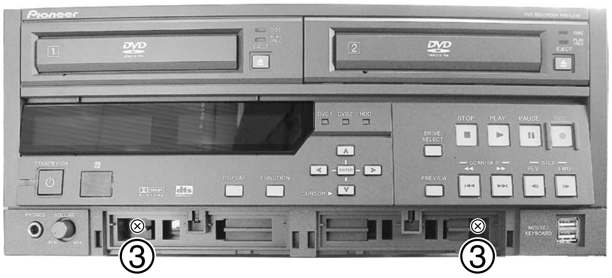
3 Front panel Section

❶ Remove the bonnet Assy. (See step 1)
❷ Remove the tray panel Section. (See step 2)

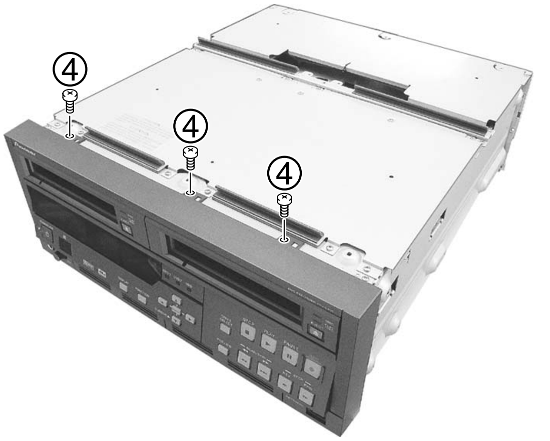
① Remove the two filter covers.
② Remove the two air filters.


Air filter
②
Filter cover
①
②
①
Air filter
Filter cover

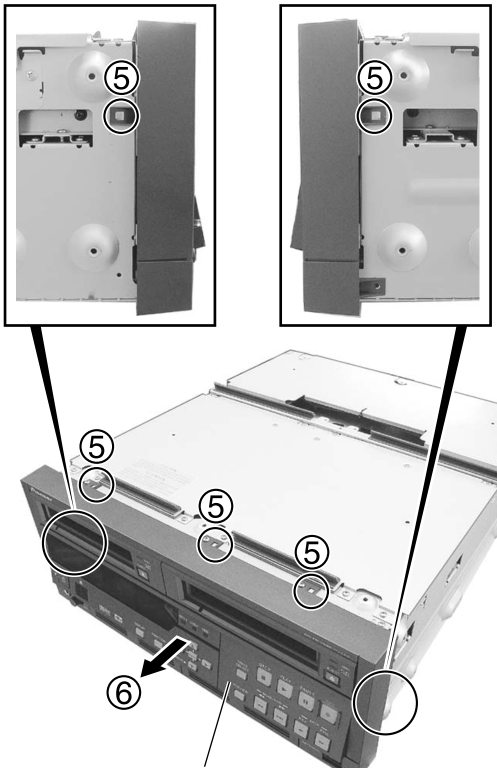
③ Remove the two screws.



④ Remove the three screws.



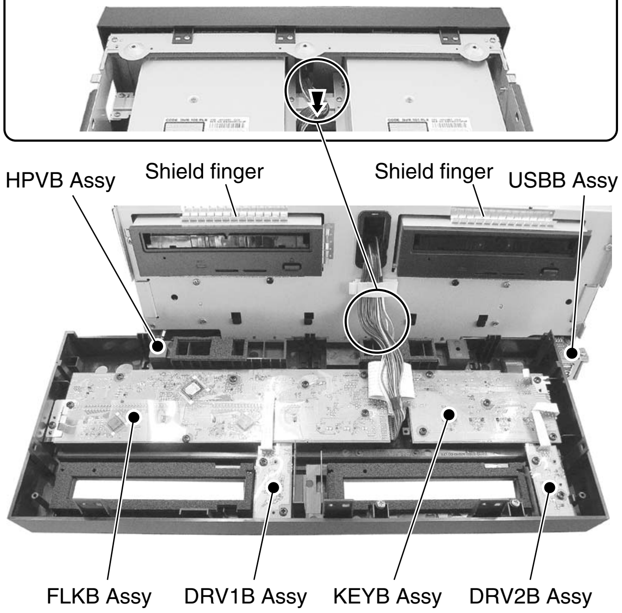
⑤ Unhook the five hooks.
⑥ Remove the front panel Section.



Front panel Section

Note:

When reattaching the front panel Section to the main unit, pull the wires shown in the figure below in the direction of the arrow and adjust the length of the wires so as not to deform the shield finger.


HPVB Assy
Shield finger
Shield finger
USBB Assy
FLKB Assy
DRV1B Assy
KEYB Assy
DRV2B Assy

4 Inner cover F and Inner cover R

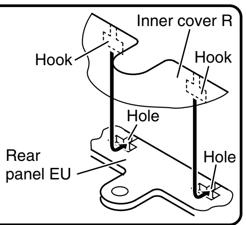
❶ Remove the bonnet Assy. (See step 1)

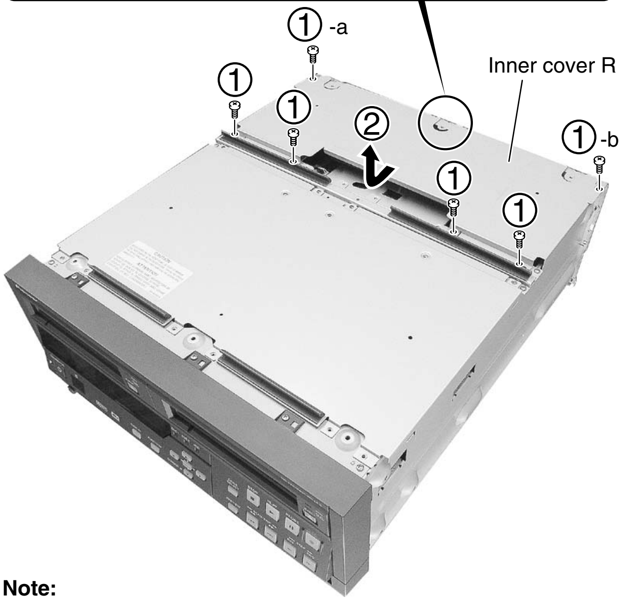
① Remove the six screws.

② Remove the inner cover R.

Note:

To remove the inner cover R, lift the front side of it about 30° then remove it so as not to deform the two hooks. When reattaching it, securely insert the two hooks into the two holes at the rear panel EU then slide the inner cover R about 2-3 mm toward the rear.

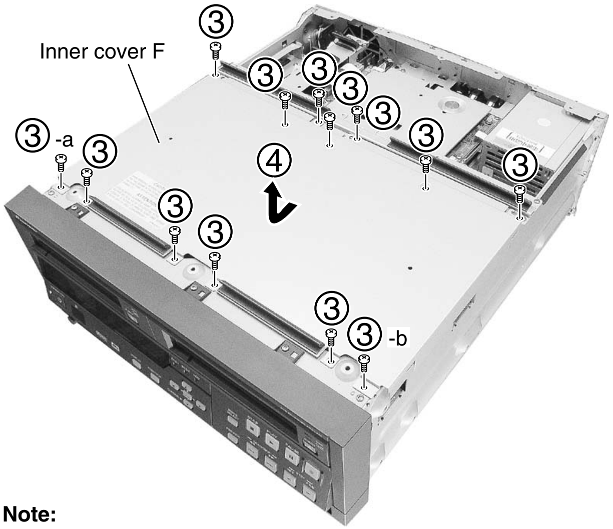

Inner cover R
Hook
Hook
Hole
Rear panel EU
Hole


①-a
①
①
②
Inner cover R
①-b
①
①

Note:
When attaching the inner cover R, tighten screws ①-a then ①-b, then tighten other screws.

③ Remove the thirteen screws.

④ Remove the inner cover F.


Inner cover F
③
③
③
③
③
③
③-a
③
④
③
③
③
③
③
③-b

Note:
When attaching the inner cover F, tighten screws ③-a then ③-b, then tighten other screws.

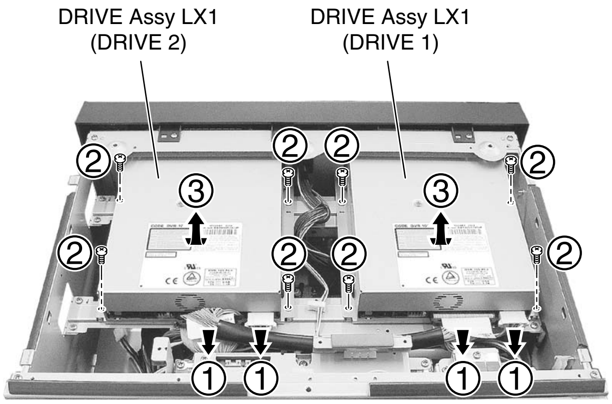
5 DRIVE Assy LX1

❶ Remove the bonnet Assy. (See step 1)
❷ Remove the tray panel Section. (See step 2)
❸ Remove the inner cover F. (See step 4)

① Disconnect the four connectors.

② Remove the eight screws.

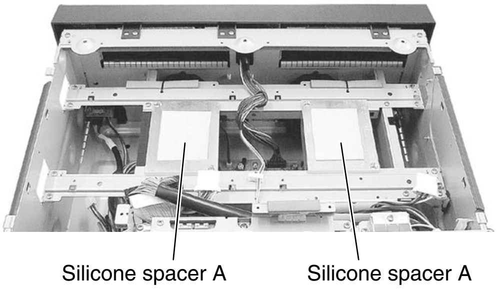
③ Remove the two DRIVE Assy LX1s.


DRIVE Assy LX1 (DRIVE 2)
DRIVE Assy LX1 (DRIVE 1)
②
②
②
②
②
②
②
②
③
③
①
①
①
①

• **Rear view**

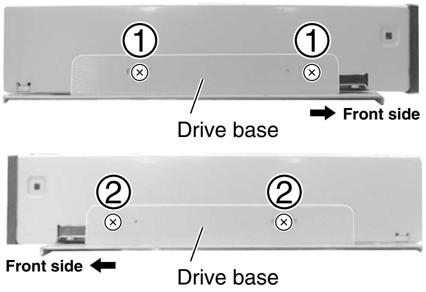
Note:

When disassembling/reassembling DRIVE Assy LX1, make sure that silicone spacer A is not torn or damaged. If it is, replace with a new one.

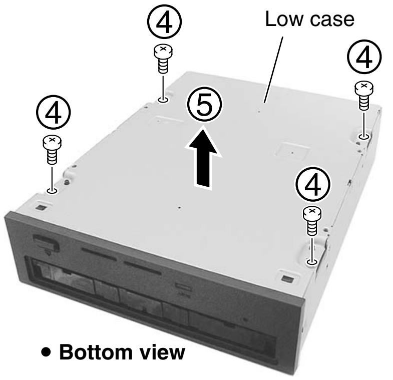

Silicone spacer A
Silicone spacer A

● Cleanning the pickup lens

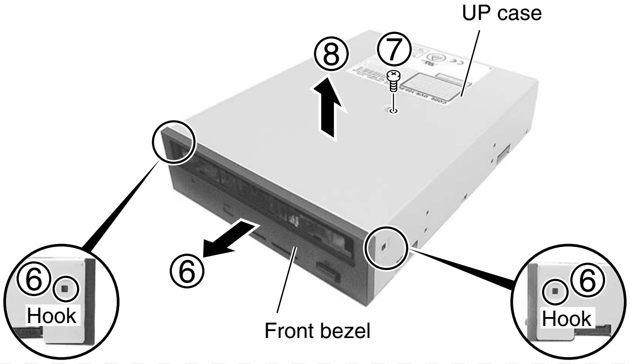
① Remove the two screws.
② Remove the two screws.
③ Remove the drive base.


①
①
Front side
Drive base
②
②
Front side
Drive base

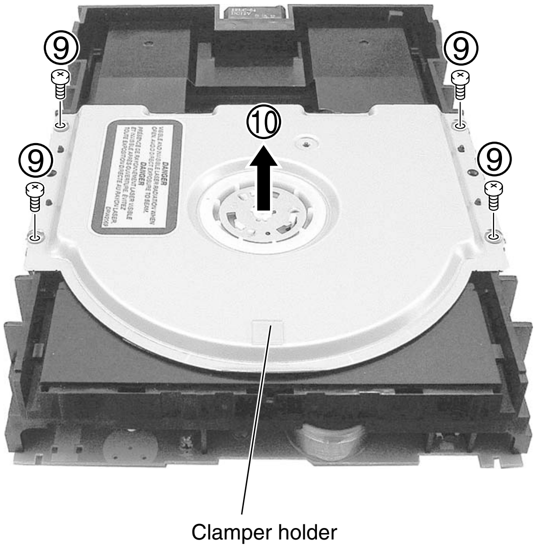
④ Remove the four screws.
⑤ Remove the low case.


④
④
④
④
⑤
Low case
● Bottom view

⑥ Remove the front bezel by unhooking the two hooks.
⑦ Remove the one screw.
⑧ Remove the UP case.


UP case
⑧
⑦
⑥
Hook
⑥
⑥
Hook
Front bezel

⑨ Remove the four screws.
⑩ Remove the clamper holder.

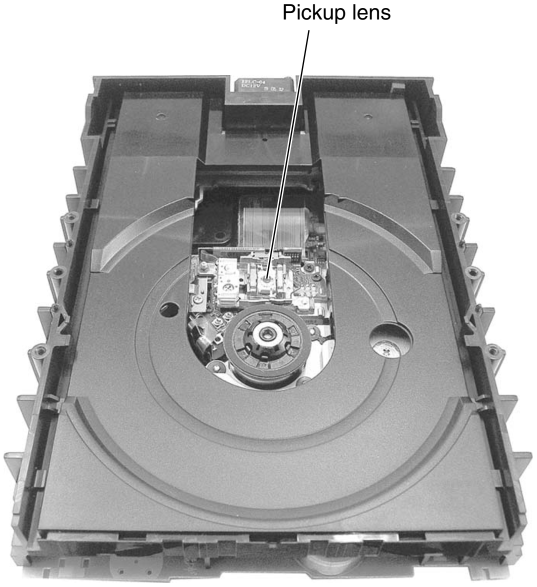

⑨
⑨
⑨
⑨
⑩
Clamper holder

⑪ Clean the pickup lens.

Before shipment, be sure to clean the pickup lens, using the following cleaning materials:

Cleaning liquid : GEM1004
Cleaning paper : GED-008

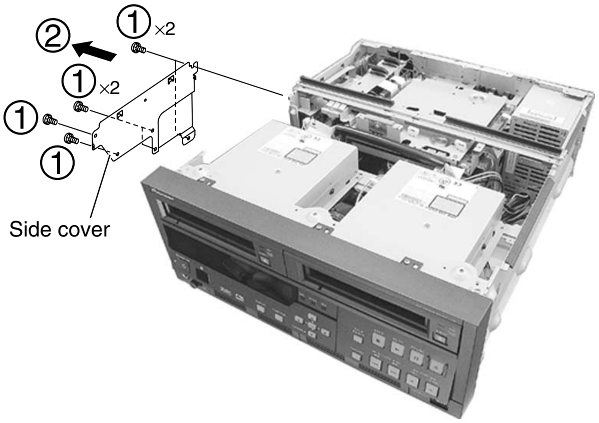
Caution :
Do NOT look directly into the pickup lens. The laser beam may cause eye injury.


Pickup lens

6 HDD Section

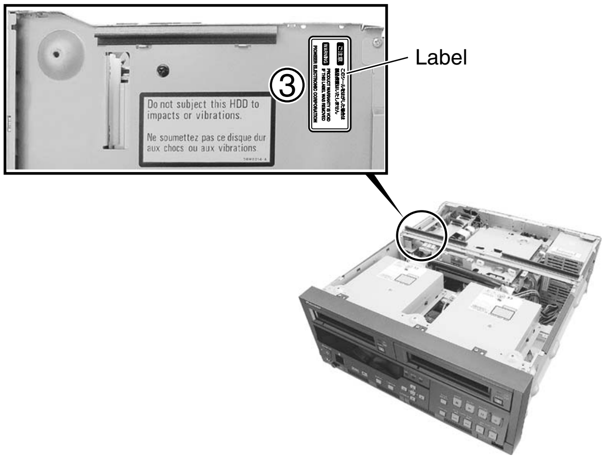
❶ Remove the bonnet Assy. (See step 1)
❷ Remove the inner cover R. (See step 4)

① Remove the six screws.
② Remove the side cover.



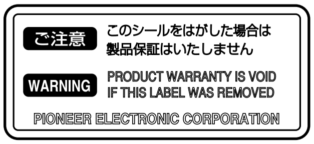
②
①×2
①×2
①
①
Side cover

③ Remove the label.



Label
③
Do not subject this HDD to impacts or vibrations.
Ne soumettez pas ce disque dur aux chocs ou aux vibrations.

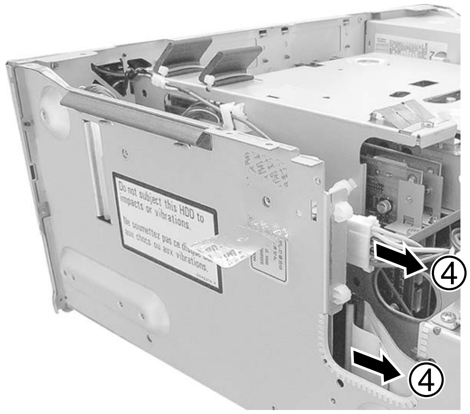
Note:



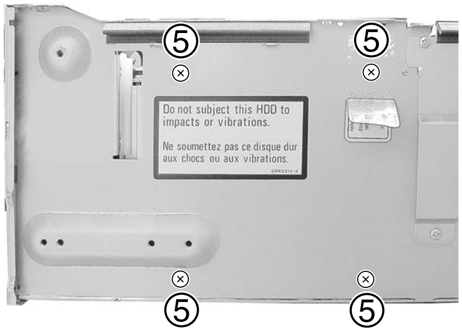
ご注意 このシールをはがした場合は製品保証はいたしません
WARNING PRODUCT WARRANTY IS VOID IF THIS LABEL WAS REMOVED
PIONEER ELECTRONIC CORPORATION

When the HDD is removed, label and attach it to cover the hole for the screw.
The label is a tamper-evident seal.
The printing on the label stuck on the product is in black, but that on the label for service is in orange.

④ Disconnect the two connectors.



⑤ Remove the four screws.

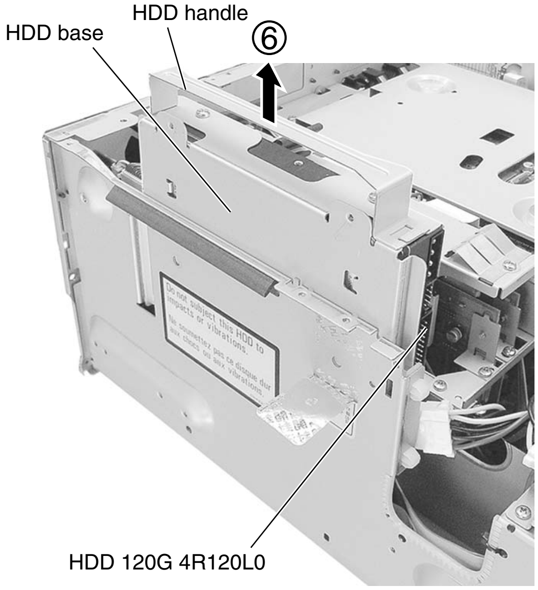


⑤
⑤
⑤
⑤
Do not subject this HDD to impacts or vibrations.
Ne soumettez pas ce disque dur aux chocs ou aux vibrations.

When attaching the HDD, tighten this screw first.

⑥ Remove the HDD Section by pulling the HDD handle.

Note: When removing the HDD Section, be careful of the edges of the HDD base and HDD handle.



HDD base
HDD handle
⑥
HDD 120G 4R120L0

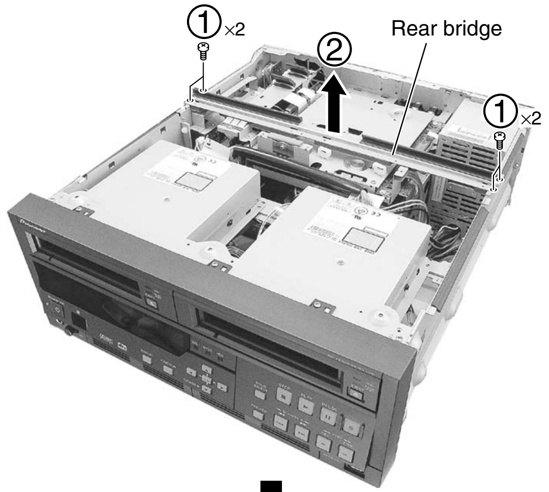
7 AVIB Assy to MOTHER BOARD Assy

❶ Remove the bonnet Assy. (See step 1)
❷ Remove the inner cover F and R. (See step 4)

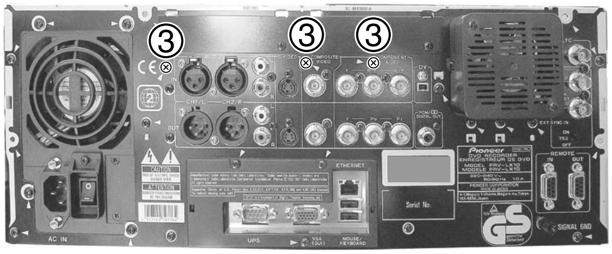
1 AVIB Assy

① Remove the four screws.

② Remove the rear bridge.


①×2
②
Rear bridge
①×2

③ Remove the three screws.

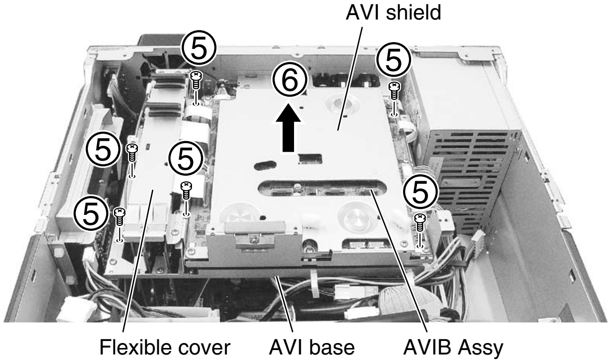


• **Rear view**

④ Disconnect the some connectors at need.

⑤ Remove the six screws.

⑥ Remove the AVIB Assy with AVI shield, AVI base and flexible cover.


AVI shield
⑤
⑤
⑥
⑤
⑤
⑤
⑤
Flexible cover
AVI base
AVIB Assy

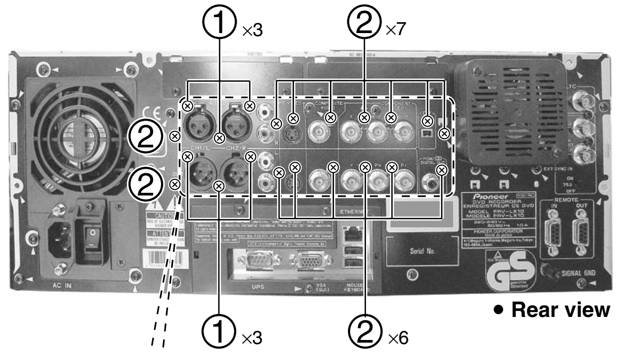
2 JKIB Assy and JKOB Assy

Note:

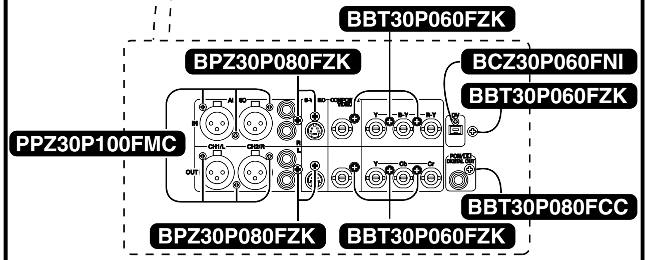
When replacing the JKIB and JKOB Assys, be sure to remove the 3P BNC earth plate and BNC earth plate from the old Assys and attach them to the new Assys.

① Remove the six screws.
(use with a medium-sized Phillips screwdriver.)

② Remove the fifteen screws.


①×3
②×7
②
②
①×3
②×6

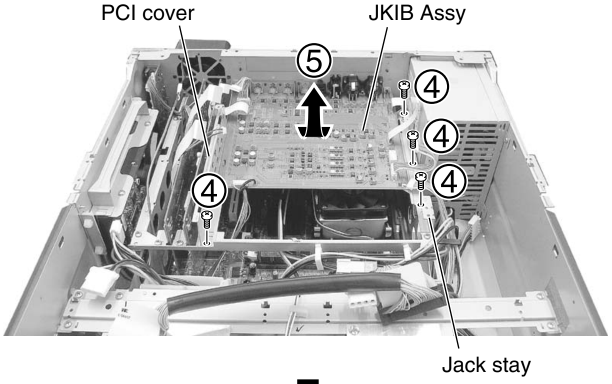
• **Rear view**


BBT30P060FZK
BPZ30P080FZK
BCZ30P060FNI
BBT30P060FZK
PPZ30P100FMC
BBT30P080FCC
BPZ30P080FZK
BBT30P060FZK

③ Disconnect the some connectors at need.

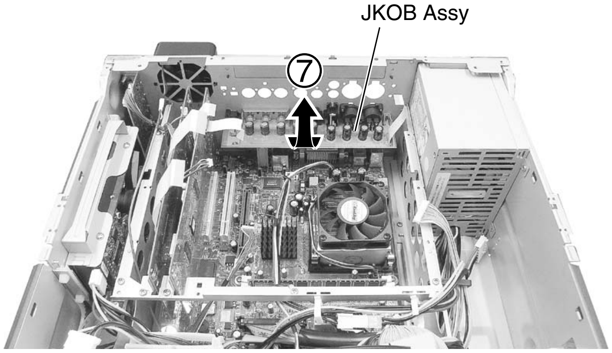
④ Remove the four screws.

⑤ Remove the JKIB Assy with PCI cover and jack stay.


PCI cover
JKIB Assy
⑤
④
④
④
④
Jack stay

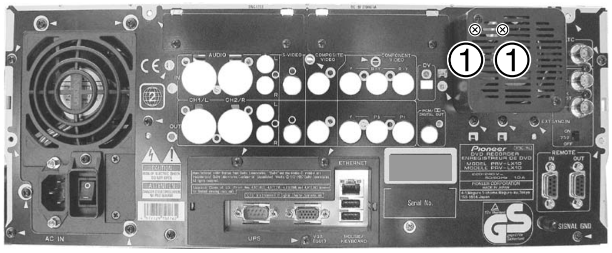
⑥ Disconnect the some connectors at need.

⑦ Remove the JKOB Assy.



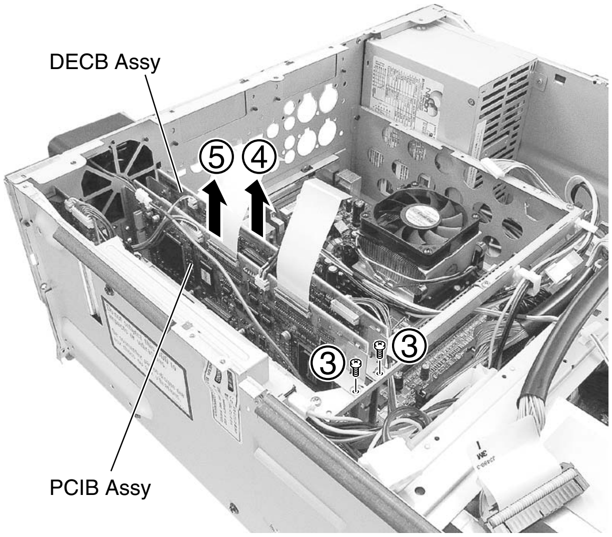
3 DECB Assy and PCIB Assy (PCI slot)

① Remove the two screws.



• Rear view

② Disconnect the some connectors at need.
③ Remove the two screws.
④ Pull out the DECB Assy from the PCI slot.
⑤ Pull out the PCIB Assy from the PCI slot.



Note 1:

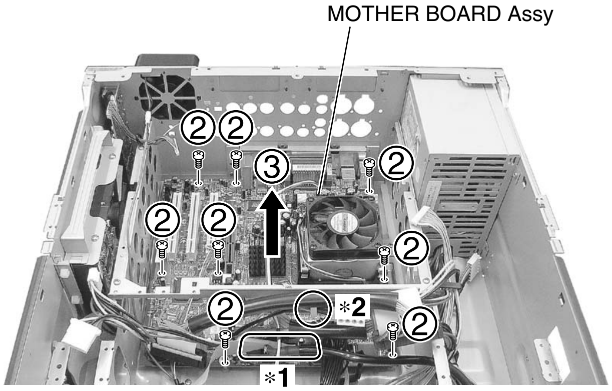
- After removing the DECB and PCIB Assys, be careful not to touch the edges of the PCI card.
- If the edges of the PCI card are dirty, clean the edges by IPA before reassembling.
- Make sure that dust does not become attached within the PCI slot on the MOTHER BOARD Assy.

Note 2:

After replacing the DECB and PCIB Assys, or after replacing the built-in flash ROM, be sure to reinstall the application and update the firmware.

4 MOTHER BOARD Assy

① Disconnect the some connectors at need.
② Remove the eight screws.
③ Remove the MOTHER BOARD Assy.



Note *1:

Because the IDE cable (40 pins) is fragile, care must be taken not to damage the cable with the edges when removing the MOTHER BOARD Assy.
(When dressing the IDE cable, bend the cable to 45 degrees at the joint of the connector and the cable.)

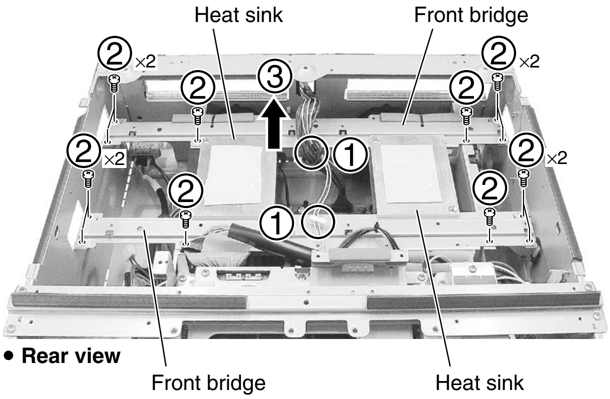
Note *2:

When attaching the Connector Assy 4P from the MOTHER BOARD Assy on the center stay with the holder, care must be taken so that nothing will touch the sharp edges of the center stay.

8 PWRB Assy

❶ Remove the bonnet Assy. (See step 1)
❷ Remove the tray panel Section. (See step 2)
❸ Remove the inner cover F. (See step 4)
❹ Remove the two DRIVE Assy LX1s. (See step 5)

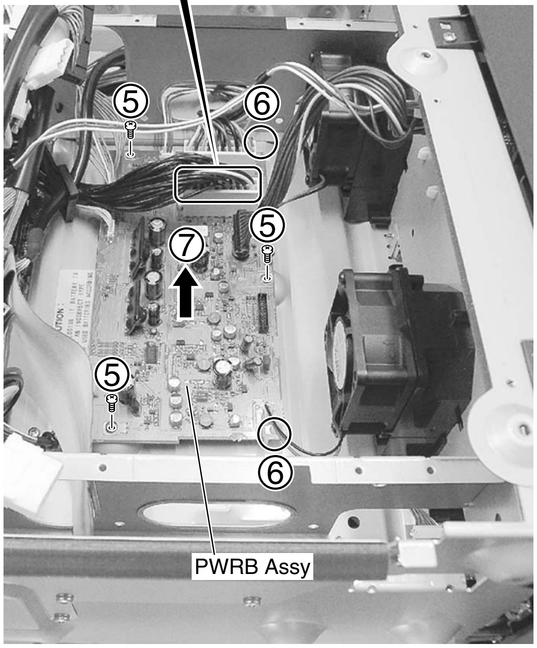
① Release the cord holder and the wire saddle.
② Remove the twenteen screws.
③ Remove the front bridge with the heat sink Section.


Heat sink
Front bridge
②×2
②
③
②
②×2
②×2
①
②×2
②
①
②
Front bridge
Heat sink

• **Rear view**

④ Disconnect the some connectors at need.
⑤ Remove the three screws.
⑥ Unhook the two card edge spacers.
⑦ Remove the PWRB Assy.

Note:
Be careful, because the connector Assy 20P is firmly attached.

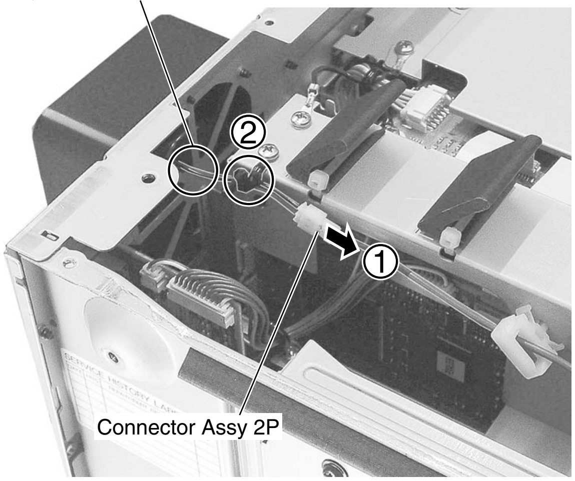

⑤
⑥
⑤
⑦
⑤
⑥
PWRB Assy

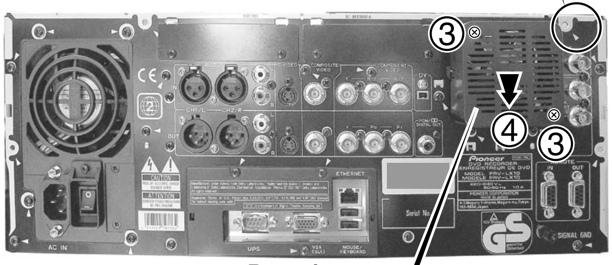
9 DC Fan motor (for rear Section)

❶ Remove the bonnet Assy. (See step 1)
❷ Remove the inner cover R. (See step 4)

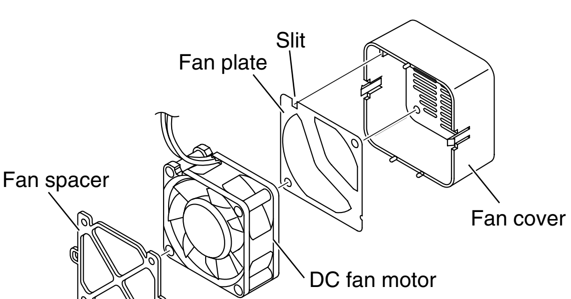
① Disconnect the connector Assy 2P.
② Release the cord holder.
③ Remove the two screws. (Tighten torque : 0.65 N•m)
④ Remove the fan Section.

Note:
When reassembling, dress the wires from the fan so that they will not touch the fan.


②
①
Connector Assy 2P



• **Rear view**


Slit
Fan plate
Fan spacer
Fan cover
DC fan motor

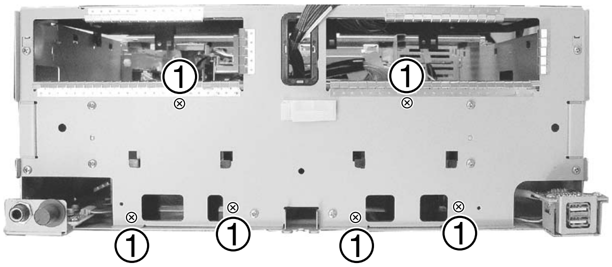
FAN Cleaning
Cleaning paper (GED-008)

Note when replacing the DC fan motor:
Be careful handling the DC fan motor, because even a light shock to it may result in noise during operation.

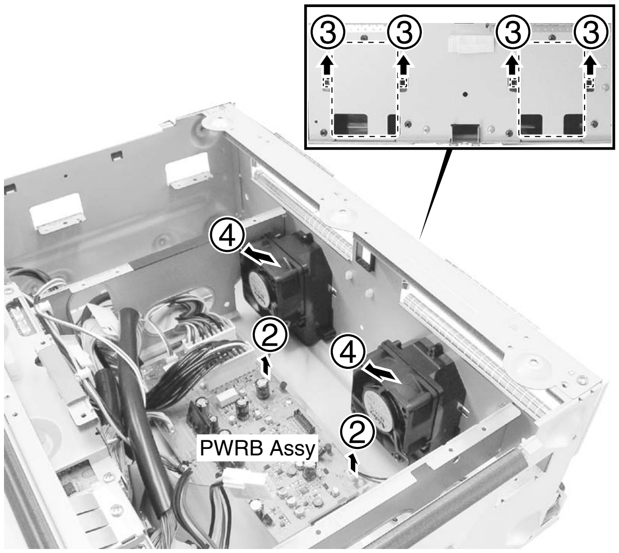
10 DC Fan motor (for front Section)

❶ Remove the bonnet Assy. (See step 1)
❷ Remove the tray panel Section. (See step 2)
❸ Remove the front panel Section. (See step 3)
❹ Remove the inner cover F. (See step 4)
❺ Remove the two DRIVE Assy LX1s. (See step 5)
❻ Remove the front bridge and heat sink Section. (See step 8)

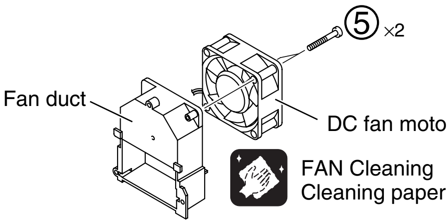
① Remove the six screws.



② Disconnect the two connectors.
③ Pull up the two fan Sections.
④ Remove the two fan Sections.


③
③
③
③
④
②
④
②
PWRB Assy

⑤ Remove the two screws.


⑤ ×2
Fan duct
DC fan motor

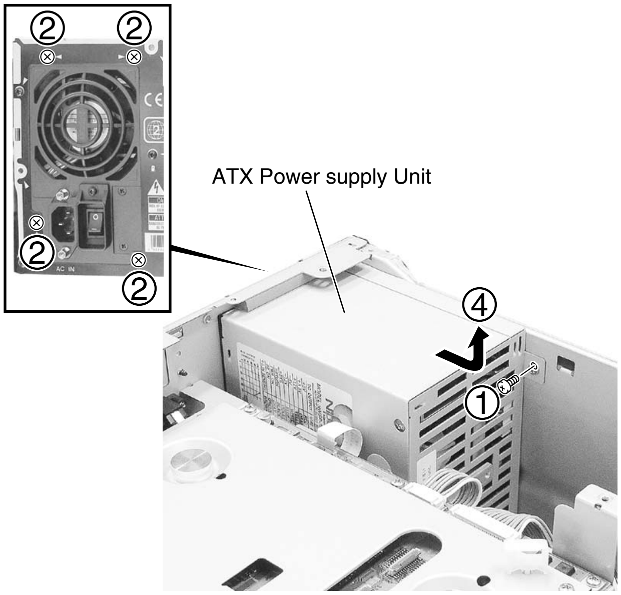
FAN Cleaning
Cleaning paper (GED-008)

Note when replacing the DC fan motor:
Be careful handling the DC fan motor, because even a light shock to it may result in noise during operation.

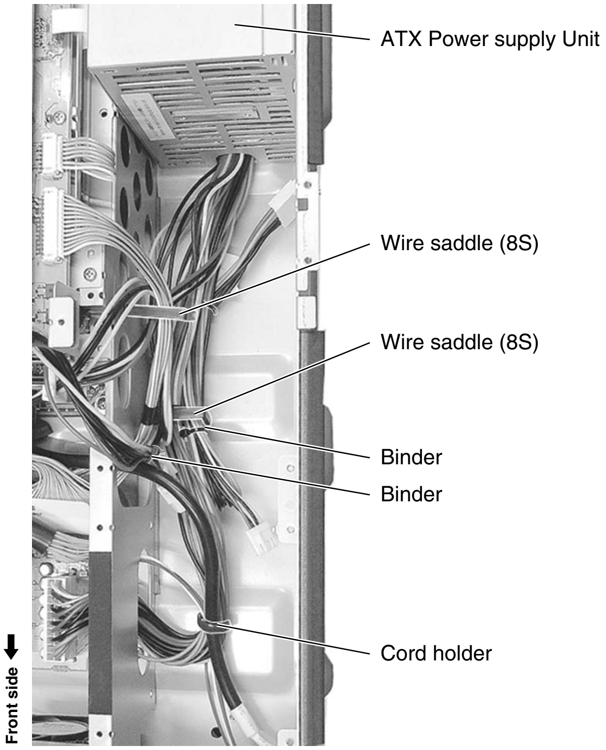
11 ATX Power supply Unit

❶ Remove the bonnet Assy. (See step 1)
❷ Remove the inner cover R. (See step 4)

① Remove the one screw.
② Remove the four screws.
③ Disconnect the some connectors at need.
④ Remove the ATX Power supply Unit.


②
②
②
②
ATX Power supply Unit
④
①

Arrangement of the cables for the ATX Power supply Unit

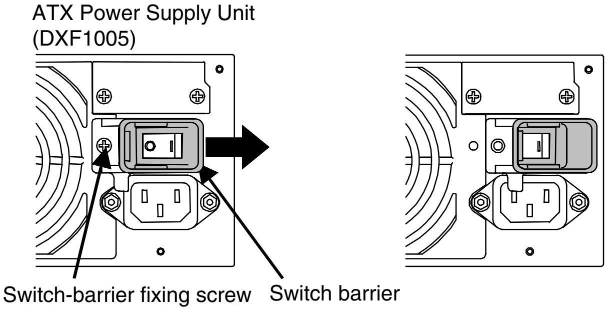

ATX Power supply Unit
Wire saddle (8S)
Wire saddle (8S)
Binder
Binder
Cord holder
Front side

How to replace the fan in the ATX Power Supply unit

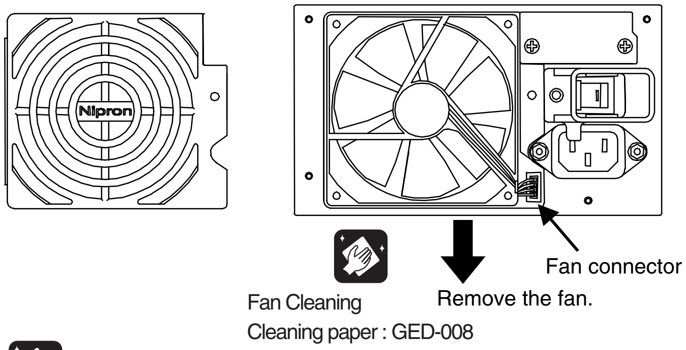
● Removing the fan

① Remove the switch-barrier fixing screw on the ATX Power Supply unit (DXF1005) then slide the switch barrier, as indicated in the figure.

Note:
Be sure to set the POWER switch to OFF and disconnect the AC power cord from the AC outlet before starting this step.


ATX Power Supply Unit
(DXF1005)
Switch-barrier fixing screw
Switch barrier

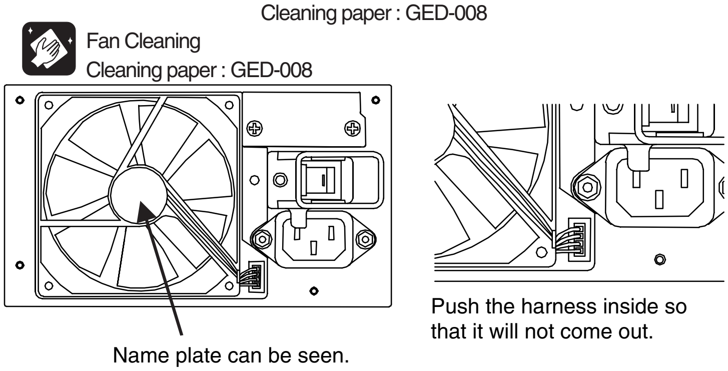
② Remove the fan guard, then remove the fan and disconnect the harness from the fan connector.


Nipron
Fan connector
Remove the fan.
Fan Cleaning
Cleaning paper : GED-008

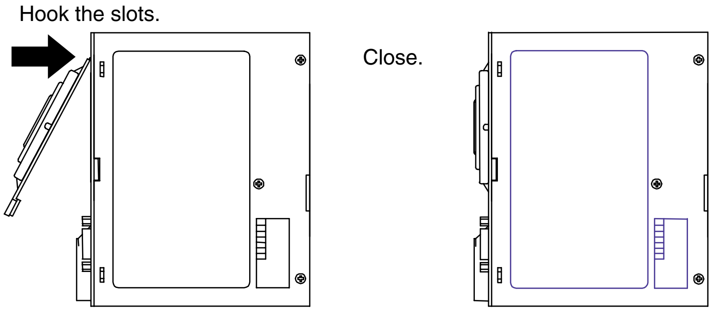
● Attaching the fan

① Connect the harness to the fan connector and install the fan into the panel. Push the harness inside.

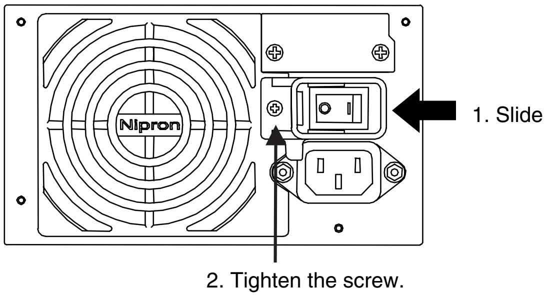
Notes:
- Place the fan so that the name plate of the fan can be seen from the front.
- Use the Fan Unit (DZM1001) dedicated to the ATX Power Supply unit (DXF1005).


Fan Cleaning
Cleaning paper : GED-008
Name plate can be seen.
Push the harness inside so that it will not come out.

② Attach the fan guard.


Hook the slots.
Close.

③ Slide the switch barrier and tighten the screw.

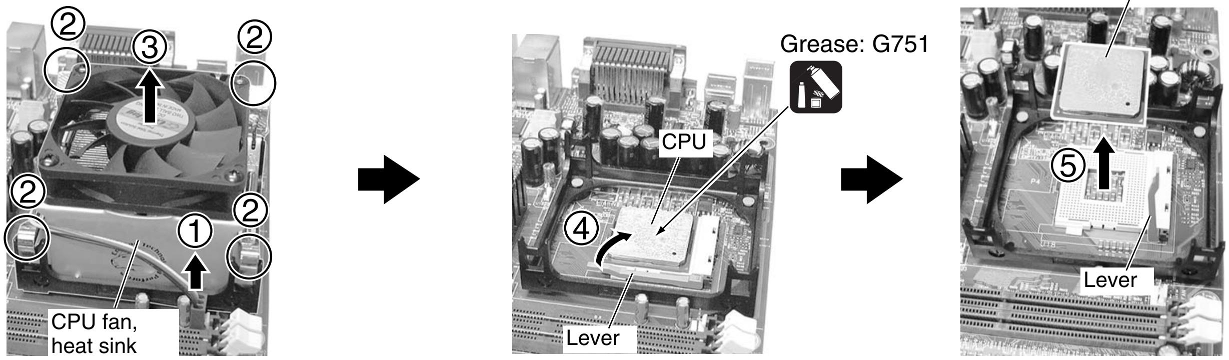

Nipron
1. Slide
2. Tighten the screw.

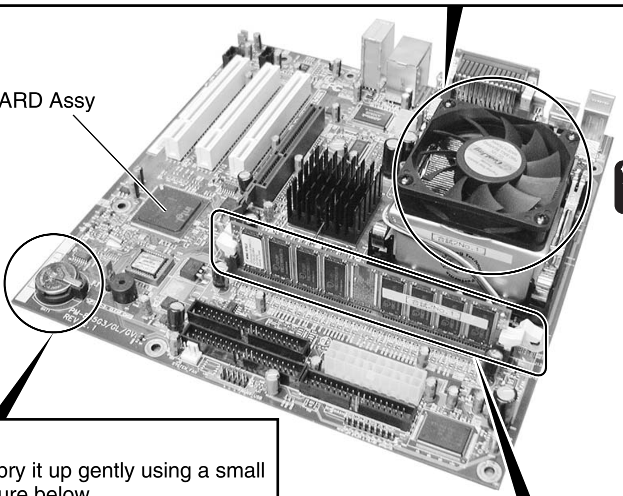
About the parts on the MOTHER BOARD Assy

On replacement of the CPU

Before reinstalling the CPU, apply the thermal compound, referring to "Notes on using the thermal compound," on the next page.

① Disconnect the cable from the connector.
② Unhook.
③ Remove the CPU fan and heat sink.
④ Lift upon the lever.
⑤ Remove the CPU.


②
③
②
②
①
②
CPU fan,
heat sink
Grease: G751
CPU
④
Lever
CPU
⑤
Lever


MOTHER BOARD Assy
Fan Cleaning
Cleaning paper : GED-008

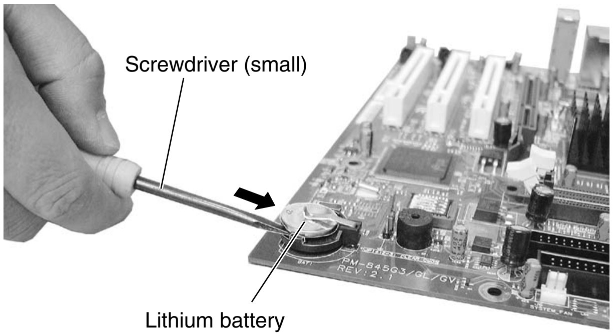
On the lithium battery

When removing the lithium battery, pry it up gently using a small slot screwdriver, as shown in the figure below.

Note: When removing the lithium battery, be careful that it does not touch other parts.

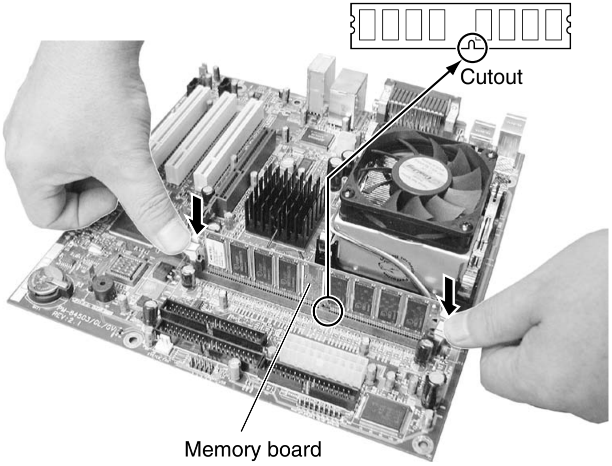
Lithium battery: 3.0 V CR2032
Panasonic: CR2032
Sony: CR2032
Toshiba: CR2032
Maxell: CR2032

Note: Before reinstalling the lithium battery, check its voltage, because it may have become discharged. (The cutoff voltage for the lithium battery is defined to be 2.5 V.)


Screwdriver (small)
Lithium battery

On replacement and expansion of the memory board

To remove the memory board, unhook the hooks on the both sides by pressing on them. When reattaching, align the indentation at bottom center with the corresponding notch at the slot opening and push the board in.


Cutout
Memory board

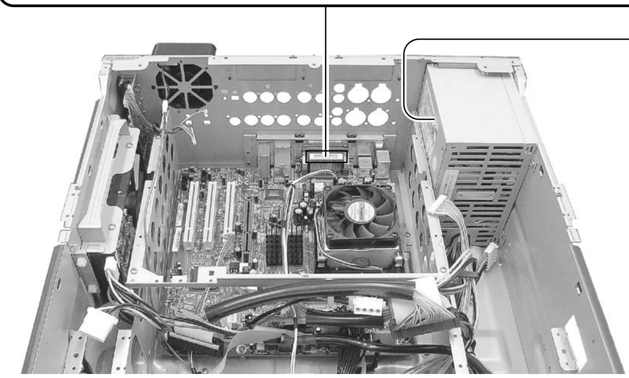
■ How to identify the MOTHER BOARD Assy and the ATX Power Supply Unit

MOTHER BOARD Assy

11S73P1801Z***######**

IBM Parts No. :73P1801

DXF1002-	1Z7WA
DXF1004-	1Z8CX 1Z8CZ 1Z90V
DXF1007-	1Z9V4



ATX Power Supply Unit

Note: The model numbers for the DXF1001 and DXF1005 are identical.

eNSP-300P-S24-00S

Number for custom-made models by Pioneer

Serial number for the maker

eNSP-300P-S24-00S
44••••••••••
MADE IN JAPAN
A B C D E F G

**######

DXF1001-
(PRV-LX1)
A B C D E F G

DXF1005-
(PRV-LX10)
▨ B C D E F G

DXF1001- (PRV-LX1)	3####### 41###### 42###### 43######
DXF1005- (PRV-LX10)	44###### 45###### 46###### 47###### 48###### 49###### 4X###### 4Y###### 4Z###### 5#######

7.2 IC INFORMATION

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

● List of IC

PE5392B8, XC2S50-5PQ208C, HD6417709AF100B, XC2S100-5PQ208C, HD6417709AF100B, M65776AFP

■ PE5392B8 (FLKB(WYV/RB) ASSY : IC501)

• FL Microcomputer

● Pin Function

No.	Pin Name	I/O	Pin Function
1	SETUP2	I	Destination setting S1
2	OEM	I	Not used (default H)
3	AN17	–	Not used
4	AVSS	–	GND
5	DRV1_OPCL	I	Disc eject signal of DRIVE1 High: when S631 is pressed, Low: normally
6	DRV2_OPCL	I	Disc eject signal of DRIVE2 High: when S631 is pressed, Low: normally
7	AVREF1	I	AVref 5V
8	PCRXD	I	Receive a signal from the Mother Board
9	PCTXD	O	Transmit a signal to the Mother Board
10	P72	–	Not used
11	FD1SI	I	Not used (Data receiving from the FL driver (IC502))
12	FD1SO	O	Data transmission to the FL driver (IC502)
13	FD1SCK	O	Clock output to the FL driver (IC502)
14	FD1STB	O	Strobe output to the FL driver (IC502)
15	FD2STB	O	Strobe output to the FL driver (IC503)
16	FD2SI	I	Not used (Data receiving from the FL driver (IC503))
17	FD2SO	O	Data transmission to the FL driver (IC503)
18	FD2SCK	O	Clock output to the FL driver (IC503)
19	PS_ON_I#	I	Capture of a PS_ON signal from the Mother Board
20	PWR_OK_I	I	Capture of a PWR_OK signal from the ATX PSU
21	CHECKER	I	Assy check mode L: Assy check mode, H: Normal mode
22	AUTO_PON	I	Automatic start setting at AC ON H: Start at AC ON, L: STB at AC ON
23	FAN_DET	I	Not used (FAN detection)
24	P45	–	Not used
25	P46	–	Not used
26	P47	–	Not used
27	SIOT	I	Not used (Data I/O for temperature sensor)
28	SCT	O	Not used (Clock output for temperature sensor)
29	CST	O	Not used (Chip select for temperature sensor)
30	K_PREVIEW	I	PREVIEW key H: Normally, L: PUSH
31	K_PLAY	I	PLAY key H: Normally, L: PUSH
32	K_REC	I	REC key H: Normally, L: PUSH
33	VSS1	–	Vss1
34	K_PAUSE	I	PAUSE key H: Normally, L: PUSH
35	K_STOP	I	STOP key H: Normally, L: PUSH
36	K_DRV_SEL	I	DRIVE SELECT key H: Normally, L: PUSH
37	LD_PLAY	O	PLAY LED control H: Normally (Extinguish), L: Light
38	DRV1_DISC	O	Disc existence of DRIVE1 H: No DISC (Extinguish), L: DISC exists (Light)
39	LD_PAUSE	O	PAUSE LED control H: Normally (Extinguish), L: Light
40	DRV2_LD_ACCESS (GREEN)	O	Access LED (GREEN) control of DRIVE2 H: Normally (Extinguish), L: Light

No.	Pin Name	I/O	Pin Function
41	LD_SB	O	STANDBY/ON LED control H: Normally (Extinguish), L: Light
42	LD_ON	O	STANDBY/ON LED control H: Normally (Extinguish), L: Light
43	LD_REC	O	REC LED control H: Normally (Extinguish), L: Light
44	SIF	I	SIF (for flash writing)
45	SOF	O	SOF (for flash writing)
46	CKF	I	CKF (for flash writing)
47	LD_DRV1	O	DRIVE 1 LED control of drive select LED H: Normally (Extinguish), L: Light
48	LD_DRV2	O	DRIVE 2 LED control of drive select LED H: Normally (Extinguish), L: Light
49	LD_HDD	O	HDD LED control of drive select LED H: Normally (Extinguish), L: Light
50	DRV1_LD_ACCESS (GREEN)	O	Access LED (GREEN) control of DRIVE 1 H: Normally (Extinguish), L: Light
51	DRV1_LD_ACCESS (RED)	O	Access LED (RED) control of DRIVE 1 H: Normally (Extinguish), L: Light
52	LD_STOP	O	STOP LED control H: Normally (Extinguish), L: Light
53	DRV2_DISC	O	Disc existence of DRIVE 2: No DISC (Extinguish), L: DISC exists (Light)
54	DRV2_LD_ACCESS (RED)	O	Access LED (RED) control of DRIVE 2 H: Normally (Extinguish), L: Light
55	PON	I	STANDBY/ON key (S509) check H: PUSH, L: Normally
56	RSTBTN	I	Not used
57	PS_ON_O#	O	Output the PS_ON signal which received from the Mother Board to the ATX power
58	PWR_SW#	O	Output a relay control signal for supply +5VSB to the Mother Board
59	RESET#	O	Reset output H: Normally, L: Reset
60	XRESET	I	For flash writing
61	IRIN	I	Remote control signal receive
62	FAN_CONT1	O	FAN control for the rear
63	FAN_CONT2	O	FAN control for the DRIVE 1
64	FAN_CONT3	O	FAN control for the DRIVE 2
65	PWR_SW2#	O	Power SW signal to the Mother Board H: Normally, L: PUSH
66	P05/INTP5	–	Not used
67	VSS0	–	Not used
68	VDD1	–	Power supply 5V
69	X2	–	Crystal connection pin for clock oscillation
70	X1	I	Crystal connection pin for clock oscillation (input)
71	VPP	–	Vpp (for flash writing)
72	XT2	–	Not used
73	XT1/P07	–	Not used
74	VDD0	I	Power supply 5V
75	AVREF0	I	AVref0 5V
76	UP,DOWN,LEFT,RIGHT	I	Analog input UP: 4.25V, DOWN: 2.8V, LEFT: 1.24V, RIGHT: 0V
77	REGION	I	Destination setting R
78	K_SCAN_STEP	I	Analog input SCAN/SKIP_FWD: 4.25V, SCAN/SKIP_REV: 2.8V, STEP_FWD: 1.24V, STEP_REV: 0V
79	ENTER,SETUP,DISPLAY	I	Analog input ENTER: 4.25V, FUNCTION: 2.8V, DISPLAY: 1.24V
80	SIMUKE1	I	Destination setting S0

■ XC2S50-5PQ208C (AVIB ASSY : IC5004)

• LTC Switch FPGA

● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	GNDDI	–	GND	46	DVREQ	I	DV control signal
2	TMS	–	TEST Pin	47	DVACK	O	DV control signal
3	27MWMK	O	27MHz clock for WMIC	48	DVFRM	I	DV control signal
4	LTC IN	I	Time code input	49	WAITDVX	I	DVXcel wait signal
5	B/XS	O	Component level switch "L"=BETA, "H"=SMPTE	50	M1	I	Mode setting (pull-up)
6	RESERVE	–	Resereved	51	GNDDI	–	GND
7	THSW	O	AV through output switch "L"=Non, "H"=THROU	52	M0	I	Mode setting (ground)
8	SCL	O	For I2C communication (not used)	53	V+3_3I	–	+3.3V
9	SDA.	O	For I2C communication (not used)	54	M2	I	Mode setting (pull-up)
10	VSEL1	O	Input video switching signal "L"=CVBS, "H"=S	55	N.C.	–	Not used
11	GNDDI	–	GND	56	N.C.	–	Not used
12	V+3_3I	–	+3.3V	57	TBCLK	O	Clock for DVXceL
13	V+2_5I	–	+2.5V	58	SDICKSEL	O	Clock selection at SDI input at SDI select: H
14	VSEL2	O	Input video switching signal "L"=CV/S, "H"=TCbCr	59	DVCSEL	I	PLL gain switch of DV input at DV input: L
15	G_ADD7	I	George656 video data	60	DVOEN	I	DV control signal
16	G_ADD6	I	George656 video data	61	XWAITV	O	DV control signal
17	G_ADD5	I	George656 video data	62	WAITDVSH	O	DV control signal
18	G_ADD4	I	George656 video data	63	LXRD	I	Host bus read signal
19	GNDDI	–	GND	64	GNDDI	–	GND
20	G_ADD3	I	George656 video data	65	V+3_3I	–	+3.3V
21	G_ADD2	I	George656 video data	66	V+2_5I	–	2.5V
22	G_ADD1	I	George656 video data	67	SEL27M	O	Not used
23	G_ADD0	I	George656 video data	68	AV1_LRCK	I	Decoder audio LR clock
24	G_NONSI	I	Nonstandard 656 flag	69	AV1_BCK	I	Decoder audio clock
25	GNDDI	–	GND	70	AV1_DAI	I	Decoder audio data
26	V+3_3I	–	+3.3V	71	SDI_CHSEL	O	SDI audio switch "L"=Ch3/4, "H"=Ch1/2
27	XSELXLR	O	Audio input switching signal "L"=RCA, "H"=XLR	72	GNDDI	–	GND
28	V+2_5I	–	+2.5V	73	AES_ERROR	I	Error signal of AES/EBU signal "L"= Error exists, "H"= no error
29	ADATI	I	ADC data	74	SDI_RST	I	System reset signal to DINB
30	BCKI	I	ADC block clock	75	SDI_LOCK	I	Lock ok signal to SDI audio "L"= Unlock, "H"= Lock
31	LRCKI	I	ADC LR clock	76	V+2_5I	–	+2.5V
32	GNDDI	–	GND	77	36MFPGA	I	36.864MHz clock for audio
33	FDATI	O	Multiplex audio data	78	V+3_3I	–	+3.3V
34	FBCKI	O	Multiplex audio clock	79	GNDDI	–	GND
35	FLRCKI	O	Multiplex audio LR clock	80	40MPLD	I	40MHz clock for configuration
36	RESERVE	–	Reserved	81	AV1_D7	I	Decoder 656 video data
37	MCIF_ACKZ	I	DV acknowledge signal	82	AV1_D6	I	Decoder 656 video data
38	V+2_5I	–	+2.5V	83	AV1_D5	I	Decoder 656 video data
39	V+3_3I	–	+3.3V	84	AV1_D4	–	Decoder 656 video data
40	GNDDI	–	GND	85	GNDDI	–	GND
41	MCIF_STRBZ	O	DV strobe signal	86	AV1_D3	I	Decoder 656 video data
42	GPIO3_WM0	I	DV control signal	87	AV1_D2	–	Decoder 656 video data
43	HSDIA_AV	I	DV control signal	88	AV1_D1	I	Decoder 656 video data
44	HSDIA_EN	O	DV control signal	89	AV1_D0	–	Decoder 656 video data
45	HSDIA_CLK	O	Clock for DV (LINK) IC	90	PCC1	I	Copy protection existence flag "H" = Copy protection exists

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
91	V+2_5I	–	+2.5V	136	SDO_LRCK	O	Audio LR clock for SDIOUT
92	V+3_3I	–	+3.3V	137	GNDDI	–	GND
93	GNDDI	–	GND	138	SDI_D0	I	656 video data for SDIIN
94	27MSDO	O	27kHz clock for SDI OUT	139	SDI_D1	I	656 video data for SDIIN
95	L_A0	I	Host address bus	140	LXWE0	I	Host bus read signal
96	L_A1	I	Host address bus	141	SDI_DAI	I	Audio data for SDIIN
97	L_A2	I	Host address bus	142	L_D2	I/O	CPU Data/configuration Data
98	L_A3	I	Host address bus	143	V+2_5I	–	+2.5V
99	L_A4	I	Host address bus	144	V+3_3I	–	+3.3V
100	L_A5	I	Host address bus	145	GNDI	–	GND
101	L_A6	I	Host address bus	146	L_D1	I/O	CPU Data/configuration Data
102	L_A7	I	Host address bus	147	SDI_D2	I	656 video data for SDIIN
103	GNDDI	–	GND	148	SDI_D3	I	656 video data for SDIIN
104	DONE	I	for configuration	149	SDI_D4	I	656 video data for SDIIN
105	V+3_3I	–	+3.3V	150	SDI_D5	I	656 video data for SDIIN
106	XPROGRAM	I	for configuration	151	SDI_D6	I	656 video data for SDIIN
107	XINT	I	for configuration	152	SDI_D7	I	656 video data for SDIIN
108	L_D0	I/O	CPU Data/configuration Data	153	L_D0	I/O	CPU Data/configuration Data
109	APLILIA_DATA	I	Audio data of APLILIA output	154	ENC OK	O	LED port for operation check
110	APLILIA_BCK	I	Audio clock of APLILIA output	155	CCLK	I	for configuration
111	APLILIA_LRCK	I	Audio clock of APLILIA output	156	V+3_3I	–	+3.3V
112	AES_VALID	I	SDI N/PAL distinction signal "L"=PAL, "H"=NTSC	157	TDO	–	Not used
113	SDI_VALID	I	Valid signal of SDI signal "L"= invalid "H"= valid	158	GNDDI	–	GND
114	DINB_EXIST	I	DINB mounting existence signal "L"= nothing, "H" = exists	159	TDI	–	Not used
115	L_D6	I/O	CPU Data/configuration Data	160	LXCS40	I	Chip select from the host
116	GNDDI	–	GND	161	LXCS40	I	Chip select from the host
117	V+3_3I	–	+3.3V	162	LXCS56	I	Chip select from the host
118	V+2_5I	–	+2.5V	163	SDI_BCK	I	Audio clock for SDIIN
119	L_D5	I/O	CPU Data/configuration Data	164	SDI_LRCK	I	Audio LR clock for SDIIN
120	SDO_D0	O	656 video data for SDIOUT	165	AESI_LRCK	I	AES/EBU audio LR clock input
121	SDO_D1	O	656 video data for SDIOUT	166	AESI_BCK	I	AES/EBU audio clock input
122	SDO_D2	O	656 video data for SDIOUT	167	AESI_DAI	I	AES/EBU audio data input
123	SDO_D3	O	656 video data for SDIOUT	168	F_ADD0	O	656 video data to VAIKILT
124	GNDDI	–	GND	169	GNDDI	–	GND
125	SDO_D4	O	656 video data for SDIOUT	170	V+3_3I	–	+3.3V
126	L_D4	I/O	CPU Data/configuration Data	171	V+2_5I	–	+2.5V
127	SDO_D5	O	656 video data for SDIOUT	172	F_ADD1	O	656 video data to VAIKILT
128	V+2_5I	–	+2.5V	173	F_ADD2	O	656 video data to VAIKILT
129	SDO_D6	O	656 video data for SDIOUT	174	F_ADD3	O	656 video data to VAIKILT
130	V+3_3I	–	+3.3V	175	F_ADD4	O	656 video data to VAIKILT
131	GNDDI	–	GND	176	F_ADD5	O	656 video data to VAIKILT
132	SDO_D7	O	656 video data for SDIOUT	177	GNDDI	–	GND
133	SDO_DAI	O	Audio data for SDIOUT	178	F_ADD6	O	656 video data to VAIKILT
134	SDO_BCK	O	Audio clock for SDIOUT	179	F_ADD7	O	656 video data to VAIKILT
135	L_D3	I/O	CPU Data/configuration Data	180	F_NONSI	O	Nonstandard 656 flag to VAIKILT

No.	Pin Name	I/O	Pin Function
181	SDO_ENA	O	Digital output switching signal
182	27MFPGA	I	27MHz clock for FPGA
183	GNDDI	–	GND
184	V+3_3I	–	+3.3V
185	27MDEC	I	27MHz clock of AV1 output
186	V+2_5I	–	+2.5V
187	DV_VAIKILTD0	I	656 video data of VAIKILT output
188	DV_VAIKILTD1	I	656 video data of VAIKILT output
189	DV_VAIKILTD2	I	656 video data of VAIKILT output
190	GNDDI	–	GND
191	DV_VAIKILTD3	I	656 video data of VAIKILT output
192	DV_VAIKILTD4	I	656 video data of VAIKILT output
193	DV_VAIKILTD5	I	656 video data of VAIKILT output
194	DV_VAIKILTD6	I	656 video data of VAIKILT output
195	DV_VAIKILTD7	I	656 video data of VAIKILT output
196	V+2_5I	–	+2.5V
197	V+3_3I	–	+3.3V
198	GNDDI	–	GND
199	WMKD0	O	656 video data for water mark
200	WMKD1	O	656 video data for water mark
201	WMKD2	O	656 video data for water mark
202	WMKD3	O	656 video data for water mark
203	WMKD4	O	656 video data for water mark (LED port for operation check)
204	WMKD5	O	656 video data for water mark (LED port for operation check)
205	WMKD6	O	656 video data for water mark (LED port for operation check)
206	WMKD7	O	656 video data for water mark (LED port for operation check)
207	TCK	–	Not used
208	GNDI	–	Connect to +3.3V

■ HD6417709AF100B (PCIB ASSY : IC2405)

- MPU IC

● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	MD1	I	CLK mode setting fixed to H	46	D5	I/O	Data bus
2	MD2	I	CLK mode setting fixed to H	47	VccQ	–	Core power supply (1.8V)
3	Vcc-RTC	–	Power supply for RTC (1.8V)	48	D4	I/O	Data bus
4	XTAL2	0	RTC output (32.768 kHz)	49	D3	I/O	Data bus
5	EXTAL2	I	RTC input (32.768 kHz)	50	D2	I/O	Data bus
6	Vss-RTC	–	Ground	51	D1	I/O	Data bus
7	NMI	I	NMI interruption (not used)	52	D0	I/O	Data bus
8	IREQ0	I	Not used	53	A0	O	Address bus
9	IREQ1	I	Not used	54	A1	O	Address bus
10	IREQ2	I	DVXCel interruption (L: active)	55	A2	O	Address bus
11	IREQ3	I	Audery (L: active)	56	A3	O	Address bus
12	IREQ4	I	Pcif (Xilinx) interruption (L: active)	57	VssQ	–	Ground
13	D31	I/O	Data bus	58	A4	O	Address bus
14	D30	I/O	Data bus	59	VccQ	–	Core power supply (1.8V)
15	D29	I/O	Data bus	60	A5	O	Address bus
16	D28	I/O	Data bus	61	A6	O	Address bus
17	D27	I/O	Data bus	62	A7	O	Address bus
18	D26	I/O	Data bus	63	A8	O	Address bus
19	VssQ	–	Ground	64	A9	O	Address bus
20	D25	I/O	Data bus	65	A10	O	Address bus
21	VccQ	–	Core power supply (1.8V)	66	A11	O	Address bus
22	D24	I/O	Data bus	67	A12	O	Address bus
23	D23	I/O	Data bus	68	A13	O	Address bus
24	D22	I/O	Data bus	69	VssQ	–	Ground
25	D21	I/O	Data bus	70	A14	O	Address bus
26	D20	I/O	Data bus	71	VccQ	–	Core power supply (1.8V)
27	Vss	–	Ground	72	A15	O	Address bus
28	D19	I/O	Data bus	73	A16	O	Address bus
29	Vcc	–	I/O power supply (3.3V)	74	A17	O	Address bus
30	D18	I/O	Data bus	75	A18	O	Address bus
31	D17	I/O	Data bus	76	A19	O	Address bus
32	D16	I/O	Data bus	77	A20	O	Address bus
33	VssQ	–	Ground	78	A21	O	Address bus
34	D15	I/O	Data bus	79	Vss	–	Ground
35	VccQ	–	Core power supply (1.8V)	80	A20	O	Address bus
36	D14	I/O	Data bus	81	Vcc	–	I/O power supply (3.3V)
37	D13	I/O	Data bus	82	A23	O	Address bus
38	D12	I/O	Data bus	83	VssQ	–	Ground
39	D11	I/O	Data bus	84	A24	O	Address bus
40	D10	I/O	Data bus	85	VccQ	–	Core power supply (1.8V)
41	D9	I/O	Data bus	86	A25	O	Address bus
42	D8	I/O	Data bus	87	BS	O	Starts bus cycle
43	D7	I/O	Data bus	88	RD	O	Read strobe
44	D6	I/O	Data bus	89	WE0	O	Write strobe
45	VssQ	–	Ground	90	WE1	O	Write strobe

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
91	WE2	O	Write strobe	136	TRST	I	For debugging
92	WE3	O	Write strobe	137	TMS	I	For debugging
93	RDWR	O	Read / Write	138	TDI	I	For debugging
94	AUDSYNC	O	For debugging	139	TCK	I	For debugging
95	VssQ	–	Ground	140	INTB	I	Slalom interruption (L: active)
96	CS0	O	Chip select 0	141	INTA	I	Not used
97	VccQ	–	Core power supply (1.8V)	142	INT9	I	Not used
98	CS2	O	Chip select 2	143	INT8	I	Slalom interruption (L: active)
99	CS3	O	Chip select 3	144	MD0	I	CLK mode setting fixed to H
100	CS4	O	Chip select 4	145	Vcc-PLL1	–	Power supply for PLL (1.8V)
101	CS5	O	Chip select 5	146	CAP1	–	Capacitor pin for PLL
102	CS6	O	Chip select 6	147	Vss-PLL1	–	Ground
103	DVOEN	O	DV REQ MASK	148	Vss-PLL2	–	Ground
104	XRSTAU	O	Reset for Audery	149	CAP2	–	Capacitor pin for PLL
105	CKE	O	CKE for SDRAM	150	Vcc-PLL2	–	Power supply for PLL (1.8V)
106	RAS3	O	RAS for SDRAM	151	AUDC	O	For debugging
107	N.C.	–	Not used	152	Vss	–	Ground
108	CASL	O	CAS for SDRAM	153	Vss	–	Ground
109	VssQ	–	Ground	154	Vcc	–	I/O power supply (3.3V)
110	XPHRST	O	Reset for 1394PHY	155	XTAL	O	CPU clock
111	VccQ	–	Core power supply (1.8V)	156	EXTAL	I	CPU clock
112	WMRST	O	Not used	157	DVCSEL	O	Control the output signal to LTC_SW (Xilinx) Dvexcel or ceLynx
113	LXPROGRAM	O	LTC_SW (Xilinx) configuration program signal	158	N.C.	–	Not used
114	DAC0	O	Slalom DMA ACK	159	N.C.	–	Not used
115	DAC1	O	Pcif(Xilinx)DMA ACK	160	IRQOUT	O	Interruption output
116	PPROGRAM	O	Pcif (Xilinx) configuration program signal	161	VssQ	–	Ground
117	DONE	I	PCIF (Xilinx) configuration termination signal	162	CKIO	I	System clock input (40MHz)
118	PINI	I/O	PCIF (Xilinx) configuration initial signal	163	VccQ	–	Core power supply (1.8V)
119	DRST	O	Dvxcel reset signal	164	TXD0	O	RS422 input TXD
120	TDO	O	For debugging	165	N.C.	–	Not used
121	BACK	O	Not used	166	TXD1	O	RS422 output TXD
122	BREQ	I	Not used	167	N.C.	–	Not used
123	WAIT	I	Wait signal	168	TXD2	O	RS232C TXD
124	RESET	I	Reset input	169	N.C.	–	Not used
125	N.C.	–	Not used	170	RTS2	O	RS232C RTS
126	N.C.	–	Not used	171	RXD0	I	RS422 input RXD
127	ASMD	I	For debugging	172	RXD1	I	RS422 output RXD
128	ASBR	O	For debugging	173	Vss	–	Ground
129	WDVS	I	Wait input from LTC_SW (Xilinx) Dvexcel	174	RXD2	I	RS232C RXD
130	AUD3	O	For debugging	175	Vcc	–	I/O power supply (3.3V)
131	AUD2	O	For debugging	176	CTS2	I	RS232C CTS
132	Vss	–	Ground	177	LXINIT	I/O	LTC_SW (Xilinx) configuration initial signal
133	AUD1	O	For debugging	178	LDONE	I	LTC_SW (Xilinx) configuration termination signal
134	Vcc	–	SH I/O power supply (3.3V)	179	INT5	I	Vaikilt interruption input (L: active)
135	AUD0	O	For debugging	180	INT4	I	Vaikilt interruption input (L: active)

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
181	VssQ	–	Ground	195	MD3	I	Bus width setting of area 0 fixed to H
182	PTD3	O	Status LED	196	MD4	I	Bus width setting of area 0 fixed to H
183	VccQ	–	Core power supply (1.8V)	197	MD5	I	Bus width setting of area 0 fixed to L
184	PTD2	O	Status LED	198	Avss	–	Ground
185	INT3	I	Celynx interruption input (L: active)	199	DBP0	I	Audery DBP0
186	INT2	I	Not used	200	DBP1	I	Audery DBP1
187	INT1	I	Not used	201	DBP2	I	Audery DBP2
188	INT0	I	George interruption input (L: active)	202	DBP3	I	Audery DBP3
189	PTD1	O	Status LED	203	SRER	I	SRC lock signal
190	PTD0	O	Status LED	204	WBSY	–	Not used
191	DREQ0	I	DMA REQ for Slalom	205	Avcc	–	Power supply for analog (3.3V)
192	DREQ1	I	DMA REQ for Pcif (Xilinx)	206	PTL6	–	Not used
193	RESET	I	Reset input	207	PTL7	–	Not used
194	CA	I	Chip active	208	Avss	–	Ground

■ XC2S100-5PQ208C (PCIB ASSY : IC2309)

- PCIF XILINX

● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	GND	–	Ground	46	AD06	I/O	PCI address/data
2	N.C.	–	Not used	47	AD05	I/O	PCI address/data
3	AD28	I/O	PCI address/data	48	AD04	I/O	PCI address/data
4	AD27	I/O	PCI address/data	49	AD03	I/O	PCI address/data
5	AD26	I/O	PCI address/data	50	M1	I	Configuration mode switch fixed to H
6	AD25	I/O	PCI address/data	51	GND	–	Ground
7	AD24	I/O	PCI address/data	52	M0	I	Configuration mode switch fixed to L
8	CBE3	I/O	PCI bus command / byte enable	53	VccO	–	I/O power supply (3.3V)
9	IDSE	I	PCI initialization device select	54	M2	I	Configuration mode switch fixed to H
10	AD23	I/O	PCI address/data	55	N.C.	–	Not used
11	GND	–	Ground	56	N.C.	–	Not used
12	VccO	–	I/O power supply (3.3V)	57	AD02	I/O	PCI address/data
13	Vccint	–	Core power supply (2.5V)	58	AD01	I/O	PCI address/data
14	AD22	I/O	PCI address/data	59	AD00	I/O	PCI address/data
15	AD21	I/O	PCI address/data	60	N.C.	–	Not used
16	AD20	I/O	PCI address/data	61	XBSOUT	O	Signal for LTC_SW (Xilinx) configuration
17	AD19	I/O	PCI address/data	62	WE0	I	SH write strobe
18	AD18	I/O	PCI address/data	63	N.C.	–	Not used
19	GND	–	Ground	64	GND	–	Ground
20	AD17	I/O	PCI address/data	65	VccO	–	I/O power supply (3.3V)
21	AD16	I/O	PCI address/data	66	Vccint	–	Core power supply (2.5V)
22	CBE2	I/O	PCI bus command / byte enable	67	BREQ	–	Not used
23	FRM	I/O	PCI frame	68	BACK	–	Not used
24	IRDY	I/O	PCI initiator ready	69	CASL	I	CAS for SH SDRAM
25	GND	–	Ground	70	RAS3	I	RAS for SH SDRAM
26	VccO	–	I/O power supply (3.3V)	71	CKE	I	CKE for SH SDRAM
27	TRDY	I/O	PCI target ready	72	GND	–	Ground
28	Vccint	–	Core power supply (2.5V)	73	CS3	I	SH chip select 3
29	DEV	I/O	PCI device select	74	RDWR	I	SH read/write
30	PAR	I/O	PCI parity	75	WE3	I	SH write strobe
31	CBE1	I/O	PCI bus command / byte enable	76	Vccint	–	Core power supply (2.5V)
32	GND	–	Ground	77	I.GCK1	–	Not used
33	AD15	I/O	PCI address/data	78	Vcc0	I	SH write strobe
34	AD14	I/O	PCI address/data	79	GND	–	Ground
35	AD13	I/O	PCI address/data	80	I.GCK0	I	SH system clock (40 MHz)
36	AD12	I/O	PCI address/data	81	WE2	I	SH write strobe
37	AD11	I/O	PCI address/data	82	WE1	I	SH write strobe
38	Vccint	–	Core power supply (2.5V)	83	DRQ1	0	DMA REQ for SH
39	VccO	–	I/O power supply (3.3V)	84	DAC1	I	DMA ACK for SH
40	GND	–	Ground	85	GND	–	Ground
41	AD10	I/O	PCI address/data	86	A15	I	SH address bus
42	AD09	I/O	PCI address/data	87	A14	I	SH address bus
43	AD08	I/O	PCI address/data	88	A13	I	SH address bus
44	CBE0	I/O	PCI bus command / byte enable	89	A12	I	SH address bus
45	AD07	I/O	PCI address/data	90	A11	I	SH address bus

No.	Pin Name	I/O	Pin Function
91	Vccint	–	Core power supply (2.5V)
92	VccO	–	I/O power supply (3.3V)
93	GND	–	Ground
94	A10	I	SH address bus
95	A09	I	SH address bus
96	A08	I	SH address bus
97	A07	I	SH address bus
98	A06	I	SH address bus
99	A05	I	SH address bus
100	A04	I	SH address bus
101	A03	I	SH address bus
102	A02	I	SH address bus
103	GND	–	Ground
104	DONE	O	PCIF (Xilinx) configuration termination signal
105	VccO	–	I/O power supply (3.3V)
106	PROGRAM	I	Pcif (Xilinx) configuration program signal
107	PINI	I/O	PCIF (Xilinx) configuration initial signal
108	D07	I/O	SH data bus
109	A01	I	SH address bus
110	A00	I	SH address bus
111	D31	I/O	SH data bus
112	D30	I/O	SH data bus
113	D29	I/O	SH data bus
114	D28	I/O	SH data bus
115	D06	I/O	SH data bus
116	GND	–	Ground
117	VccO	–	I/O power supply (3.3V)
118	Vccint	–	Core power supply (2.5V)
119	D05	I/O	SH data bus
120	D27	I/O	SH data bus
121	D26	I/O	SH data bus
122	D25	I/O	SH data bus
123	D24	I/O	SH data bus
124	GND	–	Ground
125	D23	I/O	SH data bus
126	D04	I/O	SH data bus
127	D22	I/O	SH data bus
128	Vccint	–	Core power supply (2.5V)
129	D21	I/O	SH data bus
130	VccO	–	I/O power supply (3.3V)
131	GND	–	Ground
132	D20	I/O	SH data bus
133	D19	I/O	SH data bus
134	D18	I/O	SH data bus
135	D03	I/O	SH data bus
136	D17	I/O	SH data bus
137	GND	–	Ground
138	D16	I/O	SH data bus
139	D15	I/O	SH data bus
140	D14	I/O	SH data bus
141	D13	I/O	SH data bus
142	D02	I/O	SH data bus
143	Vccint	–	Core power supply (2.5V)
144	VccO	–	I/O power supply (3.3V)
145	GND	–	Ground
146	D01	I/O	SH data bus
147	D12	I/O	SH data bus
148	D11	I/O	SH data bus
149	D10	I/O	SH data bus
150	D09	I/O	SH data bus
151	D08	I/O	SH data bus
152	IRQOUT	–	Not used
153	D00	I/O	SH data bus
154	STATUS	O	Status LED
155	CCLK	I	Configuration CLK (40 MHz)
156	VccO	–	I/O power supply (3.3V)
157	N.C.	–	Not used
158	GND	–	Ground
159	N.C.	–	Not used
160	CS6	I	SH chip select 6
161	CS6	I	SH chip select 6
162	RD	I	SH read
163	BS	I	SH bus start
164	WAIT	O	WAIT output
165	IRQ4	O	Interruption output
166	N.C.	–	Not used
167	SWAIT	I	WAIT input from Slalom
168	KAWA_D7	–	Not used
169	GND	–	Ground
170	VccO	–	I/O power supply (3.3V)
171	Vccint	–	Core power supply (2.5V)
172	KAWA_D6	–	Not used
173	KAWA_D5	–	Not used
174	KAWA_D4	–	Not used
175	KAWA_D3	–	Not used
176	KAWA_D2	–	Not used
177	GND	–	Ground
178	KAWA_D1	–	Not used
179	KAWA_D0	–	Not used
180	KAWA_DACK	–	Not used

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
181	KAWA_DREQ	–	Not used	195	STOP	I/O	PCI stop
182	CLK27FPGA	I	27MHz CLK input	196	Vccint	–	Core power supply (2.5V)
183	GND	–	Ground	197	VccO	–	I/O power supply (3.3V)
184	VccO	–	I/O power supply (3.3V)	198	GND	–	Ground
185	CLK	I	PCI clock (33 MHz)	199	LOCK	I/O	PCI lock
186	Vccint	–	Core power supply (2.5V)	200	PERR	I/O	PCI parity error
187	PIRA	I	PCI interruption	201	SDON	I/O	PCI snoop completion
188	PIRB	I	PCI interruption	202	SBO	I/O	PCI snoop back off
189	PIRC	I	PCI interruption	203	SERR	I/O	PCI system error
190	GND	–	Ground	204	AD31	I/O	PCI address/data
191	PIRD	I	PCI interruption	205	AD30	I/O	PCI address/data
192	GNT	I/O	PCI ground	206	AD29	I/O	PCI address/data
193	REQ	I/O	PCI request	207	N.C.	–	Not used
194	PME	I	PCI power management	208	VccO	–	I/O power supply (3.3V)

XC2S100-5PQ208C (DECB ASSY : IC1311)

- XILINX FPGA

● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	GNDD	–	Ground	46	AD06	I/O	PCI address/data
2	RESERVE	–	Resereved	47	AD05	I/O	PCI address/data
3	AD28	I/O	PCI address/data	48	AD04	I/O	PCI address/data
4	AD27	I/O	PCI address/data	49	AD03	I/O	PCI address/data
5	AD26	I/O	PCI address/data	50	M1	I	Configuration mode switch fixed to H
6	AD25	I/O	PCI address/data	51	GNDD	–	Ground
7	AD24	I/O	PCI address/data	52	M0	I	Configuration mode switch fixed to L
8	CBE3	I/O	PCI bus command / byte enable	53	V+3M	–	I/O power supply (+3.3V)
9	IDSE	I	PCI initialization device select	54	M2	I	Configuration mode switch fixed to H
10	AD23	I/O	PCI address/data	55	N.C.	–	Not used
11	GNDD	–	Ground	56	N.C.	–	Not used
12	V+3M	–	I/O power supply (+3.3V)	57	AD02	I/O	PCI address/data
13	V+2X	–	Core power supply (+2.5V)	58	AD01	I/O	PCI address/data
14	AD22	I/O	PCI address/data	59	AD00	I/O	PCI address/data
15	AD21	I/O	PCI address/data	60	RESERVE	–	Resereved
16	AD20	I/O	PCI address/data	61	RESERVE	–	Resereved
17	AD19	I/O	PCI address/data	62	RESERVE	–	Resereved
18	AD18	I/O	PCI address/data	63	RESERVE	–	Resereved
19	GNDD	–	Ground	64	GNDD	–	Ground
20	AD17	I/O	PCI address/data	65	V+3M	–	I/O power supply (+3.3V)
21	AD16	I/O	PCI address/data	66	V+2X	–	Core power supply (+2.5V)
22	CBE3	I/O	PCI bus command / byte enable	67	RESERVE	–	Resereved
23	FRM	I/O	PCI frame	68	RESERVE	–	Resereved
24	IRDY	I/O	PCI initiator ready	69	RESERVE	–	Resereved
25	GNDD	–	Ground	70	RESERVE	–	Resereved
26	V+3M	–	I/O power supply (+3.3V)	71	RESERVE	–	Resereved
27	TRDY	I/O	PCI target ready	72	GNDD	–	Ground
28	V+2X	–	Core power supply (+2.5V)	73	RESERVE	–	Resereved
29	DEV	I/O	PCI device select	74	RESERVE	–	Resereved
30	PAR	I/O	PCI parity	75	RESERVE	–	Resereved
31	CBE1	I/O	PCI bus command / byte enable	76	V+2X	–	Core power supply (+2.5V)
32	GNDD	–	Ground	77	I.GCK1	–	Not used
33	AD15	I/O	PCI address/data	78	V+3M	–	I/O power supply (+3.3V)
34	AD14	I/O	PCI address/data	79	GNDD	–	Ground
35	AD13	I/O	PCI address/data	80	CLK40P	I	40MHz clock input (1)
36	AD12	I/O	PCI address/data	81	RESERVE	–	Resereved
37	AD11	I/O	PCI address/data	82	RESERVE	–	Resereved
38	V+2X	–	Core power supply (+2.5V)	83	DRQ1	0	DMA REQ for SH
39	V+3M	–	I/O power supply (+3.3V)	84	DAC1	I	DMA ACK for SH
40	GNDD	–	Ground	85	GNDD	–	Ground
41	AD10	I/O	PCI address/data	86	AD15	I/O	PCI address/data
42	AD09	I/O	PCI address/data	87	AD14	I/O	PCI address/data
43	AD08	I/O	PCI address/data	88	AD13	I/O	PCI address/data
44	CBE0	I/O	PCI bus command / byte enable	89	AD12	I/O	PCI address/data
45	AD07	I/O	PCI address/data	90	AD11	I/O	PCI address/data

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
91	V+2X	–	Core power supply (+2.5V)	136	D17	I/O	SH data bus
92	V+3M	–	I/O power supply (+3.3V)	137	GNDD	–	Ground
93	GNDD	–	Ground	138	D16	I/O	SH data bus
94	AD10	I/O	PCI address/data	139	D15	I/O	SH data bus
95	AD09	I/O	PCI address/data	140	D14	I/O	SH data bus
96	AD08	I/O	PCI address/data	141	D13	I/O	SH data bus
97	AD07	I/O	PCI address/data	142	D02	I/O	SH data bus
98	AD06	I/O	PCI address/data	143	V+2X	–	Core power supply (+2.5V)
99	AD05	I/O	PCI address/data	144	V+3M	–	I/O power supply (+3.3V)
100	AD04	I/O	PCI address/data	145	GNDD	–	Ground
101	AD03	I/O	PCI address/data	146	D01	I/O	SH data bus
102	AD02	I/O	PCI address/data	147	D12	I/O	SH data bus
103	GNDD	–	Ground	148	D11	I/O	SH data bus
104	DONE	O	PCIF (Xilinx) configuration termination signal	149	D10	I/O	SH data bus
105	V+3M	–	I/O power supply (+3.3V)	150	D09	I/O	SH data bus
106	SYSRST	I	Reset input	151	D08	I/O	SH data bus
107	PTE2	I/O	PCIF (Xilinx) configuration initial signal	152	D00 (IRQOUT)	–	Not used
108	D07	I/O	SH data bus	153	D00	I/O	SH data bus
109	A01	I	SH address bus	154	RESERVE (STATUS)	O	Status LED
110	A00	I	SH address bus	155	CLK40P	I	40MHz clock input (2)
111	D31	I/O	SH data bus	156	V+3M	–	I/O power supply (+3.3V)
112	D30	I/O	SH data bus	157	RESERVE	–	Resereved
113	D29	I/O	SH data bus	158	GNDD	–	Ground
114	D28	I/O	SH data bus	159	RESERVE	–	Resereved
115	D06	I/O	SH data bus	160	CS6	I	SH chip select 6
116	GNDD	–	Ground	161	WE0	I	Write enable 0 Connect to CS6
117	V+3M	–	I/O power supply (+3.3V)	162	RD	I	SH read
118	V+2X	–	Core power supply (+2.5V)	163	BS	I	SH bus start
119	D05	I/O	SH data bus	164	WAIT	O	WAIT output
120	D27	I/O	SH data bus	165	IRQ4	O	Interruption output
121	D26	I/O	SH data bus	166	RESERVE	–	Resereved
122	D25	I/O	SH data bus	167	BWAIT	I	WAIT input from AV-1
123	D24	I/O	SH data bus	168	BD7	–	MPEG bit stream output
124	GNDD	–	Ground	169	GNDD	–	Ground
125	D23	I/O	SH data bus	170	V+3M	–	I/O power supply (+3.3V)
126	D04	I/O	SH data bus	171	V+2X	–	Core power supply (+2.5V)
127	D22	I/O	SH data bus	172	BD6	–	MPEG bit stream output
128	V+2X	–	Core power supply (+2.5V)	173	BD5	–	MPEG bit stream output
129	D21	I/O	SH data bus	174	BD4	–	MPEG bit stream output
130	V+3M	–	I/O power supply (+3.3V)	175	BD3	–	MPEG bit stream output
131	GNDD	–	Ground	176	BD2	–	MPEG bit stream output
132	D20	I/O	SH data bus	177	GNDD	–	Ground
133	D19	I/O	SH data bus	178	BD1	–	MPEG bit stream output
134	D18	I/O	SH data bus	179	BD0	–	MPEG bit stream output
135	D03	I/O	SH data bus	180	BDACK	–	MPEG bit stream acknowledge

No.	Pin Name	I/O	Pin Function
181	BDREQ	–	MPEG bit stream request
182	CLK27P	I	40MHz clock input
183	GNDD	–	Ground
184	V+3M	–	I/O power supply (+3.3V)
185	CLK	I	PCI clock (33 MHz)
186	V+2X	–	Core power supply (+2.5V)
187	PIRA	I	PCI interruption
188	PIRB	I	PCI interruption
189	PIRC	I	PCI interruption
190	GNDD	–	Ground
191	PIRD	I	PCI interruption
192	GNT	I/O	PCI ground
193	REQ	I/O	PCI request
194	PME	I	PCI power management
195	STOP	I/O	PCI stop
196	Vccint	–	Core power supply (2.5V)
197	VccO	–	I/O power supply (3.3V)
198	GNDD	–	Ground
199	LOCK	I/O	PCI lock
200	PERR	I/O	PCI parity error
201	SDON	I/O	PCI snoop completion
202	SBO	I/O	PCI snoop back off
203	SERR	I/O	PCI system error
204	AD31	I/O	PCI address/data
205	AD30	I/O	PCI address/data
206	AD29	I/O	PCI address/data
207	RESERVE	–	Reserved
208	V+3M	–	I/O power supply (+3.3V)

■ HD6417709AF100B (DECB ASSY : IC1211)

• MPU IC (SH-3)

● Pin Function

No.	Pin Name	I/O	Pin Function
1	MD1	I	CLK mode setting (H)
2	MD2	I	CLK mode setting (H)
3	Vcc-RTC	–	Power supply for RTC (+1.8V)
4	XTAL2	0	RTC output (32.768 KHz)
5	EXTAL2	I	RTC input (32.768 KHz)
6	Vss-RTC	–	Ground
7	NMI	I	NMI interruption (Not used)
8	IREQ0	I	AV-1 interruption (active L)
9	IREQ1	I	AV-1 interruption (active L)
10	IREQ2	I	Not used
11	IREQ3	I	Not used
12	IREQ4	I	Pcif (Xilinx) interruption (active L)
13	D31	I/O	Data bus
14	D30	I/O	Data bus
15	D29	I/O	Data bus
16	D28	I/O	Data bus
17	D27	I/O	Data bus
18	D26	I/O	Data bus
19	VssQ	–	Ground
20	D25	I/O	Data bus
21	VccQ	–	Core power supply (+1.8V)
22	D24	I/O	Data bus
23	D23	I/O	Data bus
24	D22	I/O	Data bus
25	D21	I/O	Data bus
26	D20	I/O	Data bus
27	Vss	–	Ground
28	D19	I/O	Data bus
29	Vcc	–	I/O power supply (+3.3V)
30	D18	I/O	Data bus
31	D17	I/O	Data bus
32	D16	I/O	Data bus
33	VssQ	–	Ground
34	D15	I/O	Data bus
35	VccQ	–	Core power supply (+1.8V)
36	D14	I/O	Data bus
37	D13	I/O	Data bus
38	D12	I/O	Data bus
39	D11	I/O	Data bus
40	D10	I/O	Data bus
41	D9	I/O	Data bus
42	D8	I/O	Data bus
43	D7	I/O	Data bus
44	D6	I/O	Data bus
45	VssQ	–	Ground
46	D5	I/O	Data bus
47	VccQ	–	Core power supply (+1.8V)
48	D4	I/O	Data bus
49	D3	I/O	Data bus
50	D2	I/O	Data bus
51	D1	I/O	Data bus
52	D0	I/O	Data bus
53	A0	O	Address bus
54	A1	O	Address bus
55	A2	O	Address bus
56	A3	O	Address bus
57	VssQ	–	Ground
58	A4	O	Address bus
59	VccQ	–	Core power supply (+1.8V)
60	A5	O	Address bus
61	A6	O	Address bus
62	A7	O	Address bus
63	A8	O	Address bus
64	A9	O	Address bus
65	A10	O	Address bus
66	A11	O	Address bus
67	A12	O	Address bus
68	A13	O	Address bus
69	VssQ	–	Ground
70	A14	O	Address bus
71	VccQ	–	Core power supply (+1.8V)
72	A15	O	Address bus
73	A16	O	Address bus
74	A17	O	Address bus
75	A18	O	Address bus
76	A19	O	Address bus
77	A20	O	Address bus
78	A21	O	Address bus
79	Vss	–	Ground
80	A20	O	Address bus
81	Vcc	–	I/O power supply (+3.3V)
82	A23	O	Address bus
83	VssQ	–	Ground
84	A24	O	Address bus
85	VccQ	–	Core power supply (+1.8V)
86	A25	O	Address bus
87	BS	O	Bus cycle start
88	RD	O	Read strobe
89	WE0	O	Write enable
90	WE1	O	Write enable

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
91	WE2	O	Write enable	136	XTRST	I	For debugging
92	WE3	O	Write enable	137	TMS	I	For debugging
93	RDWR	O	Read / Write	138	TDI	I	For debugging
94	AUDSYC	O	For debugging	139	TCK	I	For debugging
95	VssQ	–	Ground	140	PINT11	I	Not used
96	CS0	O	Chip select 0	141	PINT10	I	Not used
97	VccQ	–	Core power supply (+1.8V)	142	PINT9	I	Not used
98	CS2	O	Chip select 2	143	PINT8	I	Not used
99	CS3	O	Chip select 3	144	SHMD0	I	CLK mode setting (H)
100	CS4	O	Chip select 4	145	Vcc-PLL1	–	Power supply for PLL (+1.8V)
101	CS5	O	Chip select 5	146	CAP1	–	Capacitor pin for PLL
102	CS6	O	Chip select 6	147	Vss-PLL1	–	Ground
103	AV1RST	O	AV-1 reset	148	Vss-PLL2	–	Ground
104	CE2B	–	Not used	149	CAP2	–	Capacitor pin for PLL
105	CKE	O	CKE for SDRAM	150	Vcc-PLL2	–	Power supply for PLL (+1.8V)
106	RAS3L	O	RAS for SDRAM	151	AUDCK	O	For debugging
107	SDA1	O	Video encoder (IC1711) SDA	152	Vss	–	Ground
108	CASLL	O	CAS for SDRAM	153	Vss	–	Ground
109	VssQ	–	Ground	154	Vcc	–	I/O power supply (+3.3V)
110	XPHRST	O	Reset for 1394PHY	155	XTAL	O	CPU clock
111	VccQ	–	Core power supply (+1.8V)	156	EXTAL	I	CPU clock
112	SQZ	O	Squeeze signal	157	PALNTSC	O	PAL/NTSC selection control signal
113	CASHH	–	Not used	158	PXRST	O	Video encoder (IC1711) reset
114	DACK0	–	Not used	159	FSEL	O	16M clock selection control signal
115	XDAC1	O	Pcif (Xilinx) DMA ACK	160	IRQOUT	O	Interruption output (Not used)
116	SCL1	O	Video encoder (IC1711) SCL	161	VssQ	–	Ground
117	DONE	I	PCIF (Xilinx) configuration termination signal	162	CLK40S	I	System clock input (40MHz)
118	PTE2	O	Pcif (Xilinx) configuration program signal	163	VccQ	–	Core power supply (+1.8V)
119	LTR	O	Letter box signal	164	TXD0	–	Not used
120	TDO	O	For debugging	165	SCK0	–	Not used
121	BACK	O	Not used	166	TXD1	–	Not used
122	BREQ	I	Not used	167	SCK1	–	Not used
123	XWAIT	I	Wait input (Xilinx)	168	TXD2	O	RS232C TXD
124	SYSRST	I	Reset input	169	SCK2	–	Not used
125	N.C.	–	Not used	170	RTS2	O	RS232C RTS
126	N.C.	–	Not used	171	RXD0	–	Not used
127	ASEMD0	I	For debugging	172	RXD1	–	Not used
128	XASKAK	O	For debugging	173	Vss	–	Ground
129	N.C.	–	Not used	174	RXD2	I	RS232C RXD
130	ADATA3	O	For debugging	175	Vcc	–	I/O power supply (+3.3V)
131	ADATA2	O	For debugging	176	CTS2	I	RS232C CTS
132	Vss	–	Ground	177	MCS7	–	Not used
133	ADATA1	O	For debugging	178	MCS6	–	Not used
134	Vcc	–	SH I/O power supply (+3.3V)	179	ADJ/SYNC	O	Control signal of asynchronous / external synchronous selection
135	ADATA0	O	For debugging	180	INT/EXT	O	Control signal of 27MHz clock internal / external selection

No.	Pin Name	I/O	Pin Function
181	VssQ	–	Ground
182	PTD3	O	Status LED
183	VccQ	–	Core power supply (+1.8V)
184	PTD2	O	Status LED
185	P/XI	O	Progressive / interlace
186	CPP2	O	Copy inhibit signal for internal control
187	MCS1	–	Not used
188	CPP1	O	Copy inhibit signal for external output
189	PTD1	O	Status LED
190	PTD0	O	Status LED
191	XDREQ	I	DMA REQ for AV-1
192	XDREQ1	I	DMA REQ for Pcif (Xilinx)
193	SYSRST	I	Reset input
194	CA	I	Chip active (H)
195	SHMD3	I	Bus width setting of area 0 fixed to L
196	SHMD4	I	Bus width setting of area 0 fixed to H
197	SHMD5	I	Bus width setting of area 0 fixed to L
198	Avss	–	Ground
199	XCYNCIN	I	External synchronous flag input
200	AN1	–	Not used
201	AN2	–	Not used
202	AN3	–	Not used
203	AN4	–	Not used
204	AN5	–	Not used
205	Avcc	–	Power supply for analog (+3.3V)
206	AN6	–	Not used
207	AN7	–	Not used
208	Avss	–	Ground

■ M65776AFP (DECB ASSY : IC1513)

- AV-1

● Pin Function

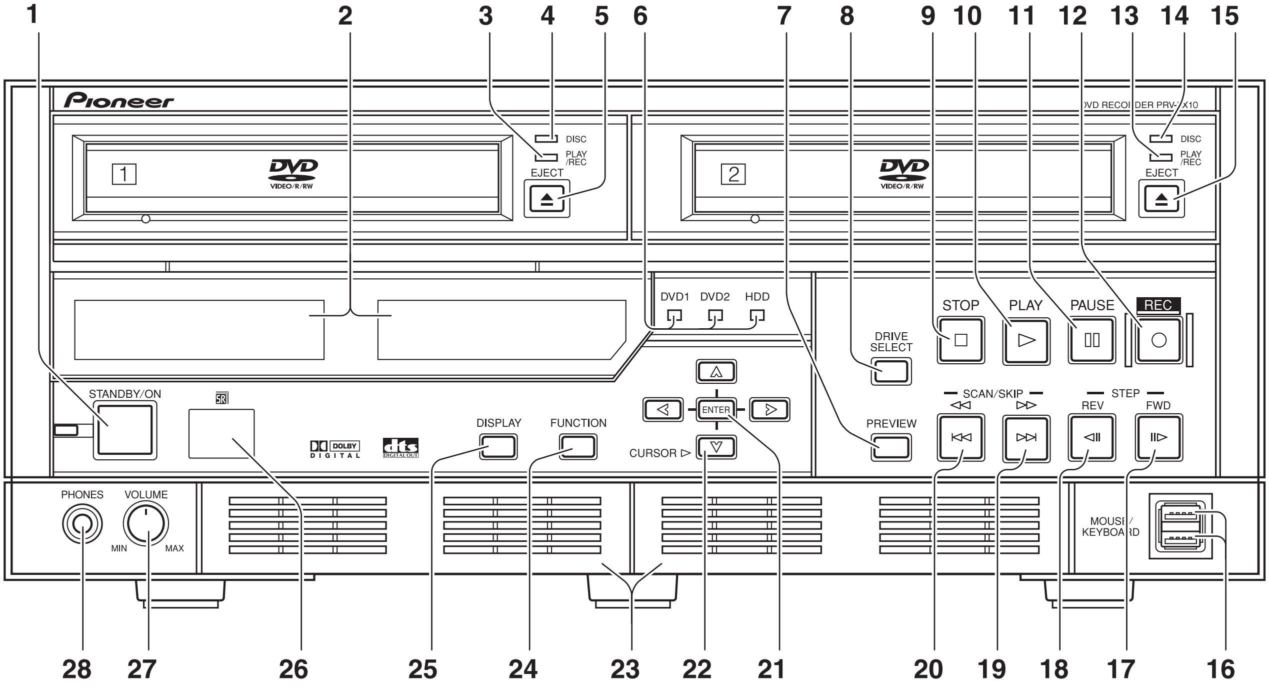
No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	GND	–	Ground	46	RDY	O	Data ready
2	BCLK	I	Bit stream clock	47	INT1	O	Interruption request
3	BDEN	I	Not used	48	INT2	O	Interruption request
4	BDREQ	0	Bit stream request	49	INT3	O	Interruption request
5	BSECH	I	Not used	50	GND	–	Ground
6	HD<0>	I/O	Data input/output	51	DREQ	O	DMA request
7	HD<1>	I/O	Data input/output	52	DACK	I	DMA acknowledge
8	HD<2>	I/O	Data input/output	53	MA<3>	O	SDRAM address
9	HD<3>	I/O	Data input/output	54	MA<4>	O	SDRAM address
10	HD<4>	I/O	Data input/output	55	MA<2>	O	SDRAM address
11	HD<5>	I/O	Data input/output	56	VDD18	–	Power supply for internal circuit (+1.8V)
12	VDD18	–	Power supply for internal circuit (+1.8V)	57	VDD33	–	I/O power supply (+3.3V)
13	VDD33	–	I/O power supply (+3.3V)	58	MA<5>	O	SDRAM address
14	HD<6>	I/O	Data input/output	59	MA<1>	O	SDRAM address
15	HD<7>	I/O	Data input/output	60	MA<6>	O	SDRAM address
16	HD<8>	I/O	Data input/output	61	MA<0>	O	SDRAM address
17	HD<9>	I/O	Data input/output	62	MA<7>	O	SDRAM address
18	HD<10>	I/O	Data input/output	63	MA<10>	O	SDRAM address
19	HD<11>	I/O	Data input/output	64	GND	–	Ground
20	GND	–	Ground	65	MA<8>	O	SDRAM address
21	HD<12>	I/O	Data input/output	66	MBA[1]	O	SDRAM bank selection
22	HD<13>	I/O	Data input/output	67	MA<9>	O	SDRAM address
23	HD<14>	I/O	Data input/output	68	MBA[0]	O	SDRAM bank selection
24	HD<15>	I/O	Data input/output	69	MA<11>	O	SDRAM address
25	HA<0>	I	Address input	70	DCS	O	SDRAM chip selection
26	HA<1>	I	Address input	71	VDD18	–	Power supply for internal circuit (+1.8V)
27	VDD18	–	Power supply for internal circuit (+1.8V)	72	VDD33	–	I/O power supply (+3.3V)
28	VDD33	–	I/O power supply (+3.3V)	73	DCS2	O	SDRAM chip selection
29	HA<2>	I	Address input	74	DCS3	O	SDRAM chip selection
30	HA<3>	I	Address input	75	DCS4	O	SDRAM chip selection
31	HA<4>	I	Address input	76	DCS5	O	SDRAM chip selection
32	HA<5>	I	Address input	77	RAS	O	SDRAM-RAS
33	HA<6>	I	Address input	78	CAS	O	SDRAM-CAS
34	HA<7>	I	Address input	79	MCLK	O	SDRAM clock
35	GND	–	Ground	80	DWE	O	SDRAM write enable
36	HA<8>	I	Address input	81	GND	–	Ground
37	HA<9>	I	Address input	82	DQMU	O	SDRAM-DQM upper byte
38	HA<10>	I	Address input	83	DQML	O	SDRAM-DQM lower byte
39	HA<11>	I	Address input	84	MD<7>	I/O	SDRAM data input/output
40	CS	I	Chip select	85	MD<8>	I/O	SDRAM data input/output
41	RE	I	Read enable	86	MD<6>	I/O	SDRAM data input/output
42	VDD18	–	Power supply for internal circuit (+1.8V)	87	MD<9>	I/O	SDRAM data input/output
43	VDD33	–	I/O power supply (+3.3V)	88	VDD18	–	Power supply for internal circuit (+1.8V)
44	WE	I	Write enable	89	VDD33	–	I/O power supply (+3.3V)
45	BHE	I	Byte high enable	90	MD<5>	I/O	SDRAM data input/output

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
91	MD<10>	I/O	SDRAM data input/output	136	N.C.	–	Not used
92	MD<4>	I/O	SDRAM data input/output	137	N.C.	–	Not used
93	MD<11>	I/O	SDRAM data input/output	138	N.C.	–	Not used
94	MD<3>	I/O	SDRAM data input/output	139	N.C.	–	Not used
95	MD<12>	I/O	SDRAM data input/output	140	N.C.	–	Not used
96	GND	–	Ground	141	N.C.	–	Not used
97	MD<2>	I/O	SDRAM data input/output	142	N.C.	–	Not used
98	MD<13>	I/O	SDRAM data input/output	143	N.C.	–	Not used
99	MD<1>	I/O	SDRAM data input/output	144	N.C.	–	Not used
100	MD<14>	I/O	SDRAM data input/output	145	GND	–	Ground
101	MD<0>	I/O	SDRAM data input/output	146	N.C.	–	Not used
102	MD<15>	I/O	SDRAM data input/output	147	N.C.	–	Not used
103	VDD18	–	Power supply for internal circuit (+1.8V)	148	N.C.	–	Not used
104	VDD33	–	I/O power supply (+3.3V)	149	N.C.	–	Not used
105	CLKO	O	27MHz clcok output	150	N.C.	–	Not used
106	CLKI	I	27MHz clock input	151	N.C.	–	Not used
107	AVDD18	–	Power supply for internal PLL (+1.8V)	152	N.C.	–	Not used
108	AGND18	–	Ground for internal PLL	153	N.C.	–	Not used
109	N.C.	–	Not used	154	N.C.	–	Not used
110	N.C.	–	Not used	155	VDD18	–	Power supply for internal circuit (+1.8V)
111	N.C.	–	Not used	156	VDD33	–	I/O power supply (+3.3V)
112	GND	–	Ground	157	N.C.	–	Not used
113	AVDD33	–	Analog power supply (+3.3V)	158	N.C.	–	Not used
114	DAOUTB	–	Not used (connect to ground)	159	LRCLK	O	Audio channel distinction clock
115	AVRI	I	Reference voltage	160	CDLRCLK	I	Not used
116	PAB	O	Pb current output	161	CDBCK	I	Not used
117	IREF	I	Reference current	162	CDDATA	I	Not used
118	BIAS2	I	Bias voltage for power source	163	CDDIN	I	Not used
119	PAY	O	Y (progressive) current output	164	AO0	O	PCM serial data for DAC
120	BIAS1	I	Bias voltage for power source	165	GND	–	Ground
121	AVDD33	–	Analog power supply (+3.3V)	166	AO1	O	PCM serial data for DAC (Not used)
122	PAR	O	Pr current output	167	AO2	O	PCM serial data for DAC (Not used)
123	AVDD33	–	Analog power supply (+3.3V)	168	AOD	O	PCM serial data for DAC (Not used)
124	AGND33	–	Analog ground	169	AAD	O	Not used
125	GND	–	Ground	170	DOUT0	O	Digital audio (S/PDIF) output
126	N.C.	–	Not used	171	DOUT1	O	S/PDIF output (Not used)
127	N.C.	–	Not used	172	ACLKI	I	Audio clock
128	N.C.	–	Not used	173	DACCLK	O	DAC oversampling operating clock (Not used)
129	N.C.	–	Not used	174	VDD18	–	Power supply for internal circuit (+1.8V)
130	N.C.	–	Not used	175	VDD33	–	I/O power supply (+3.3V)
131	N.C.	–	Not used	176	DOCLK	O	PCM bit clock
132	N.C.	–	Not used	177	PWD	O	Phase comparator output of external sync. signal
133	N.C.	–	Not used	178	CSYNC	I	Composite SYNC signal input
134	VDD18	–	Power supply for internal circuit (+1.8V)	179	OSDKEY	O	Not used
135	VDD33	–	I/O power supply (+3.3V)	180	VSYNC	O	Vertical sync. signal output

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
181	HSYNC	O	Horizontal sync. signal output	195	HMODE<1>	I	Mode setting input (H)
182	PXCLKP	O	54MHz pixel clock	196	TEST[0]	I	Not used (L)
183	PXCLK	O	27MHz pixel clock	197	TEST[1]	I	Not used (L)
184	PD<0>	O	Digital pixel data	198	VDD18	–	Power supply for internal circuit (+1.8V)
185	PD<1>	O	Digital pixel data	199	VDD33	–	I/O power supply (+3.3V)
186	PD<2>	O	Digital pixel data	200	TEST[2]	I	Not used (L)
187	GND	–	Ground	201	BD<0>	I	Bit stream data input
188	PD<3>	O	Digital pixel data	202	BD<1>	I	Bit stream data input
189	PD<4>	O	Digital pixel data	203	BD<2>	I	Bit stream data input
190	PD<5>	O	Digital pixel data	204	BD<3>	I	Bit stream data input
191	PD<6>	O	Digital pixel data	205	BD<4>	I	Bit stream data input
192	PD<7>	O	Digital pixel data	206	BD<5>	I	Bit stream data input
193	RESET	I	SH-3 AV1RST	207	BD<6>	I	Bit stream data input
194	HMODE<0>	I	Mode setting input (L)	208	BD<7>	I	Bit stream data input

8. PANEL FACILITIES

- DVD RECODER [PRV-LX10]
- Front Panel Facilities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Pioneer
DVD RECORDER PRV-LX10
DISC
PLAY /REC
EJECT
1
2
DVD VIDEO/R/RW
DVD1
DVD2
HDD
DRIVE SELECT
STOP
PLAY
PAUSE
REC
STANDBY/ON
DISPLAY
FUNCTION
ENTER
CURSOR ▷
PREVIEW
SCAN/SKIP
STEP
REV
FWD
DOLBY DIGITAL
dts DIGITAL OUT
PHONES
VOLUME
MIN
MAX
MOUSE/ KEYBOARD
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No.	Name	Function
1	**STANDBY/ON button**	When the unit is in the standby condition, pressing this button causes the power to come on; the power indicator (to the left of the button) changes from orange to green. The main display section indicates system startup. After system startup is completed, the unit enters “idling condition,” and as the unit’s display changes to show the current time, the **STOP** button lights. When the unit is in the standby condition, if this button is pressed while holding the **STOP** button depressed, the **Function Menu**’s setting values will be reset to their factory defaults, and the power will then turn ON. If the button is held depressed for one second or more when the unit is in the idling condition, the unit will perform system shutdown, followed by return to the standby mode (the power indicator will change from green to orange). In the event operation becomes unstable and manual forced shutdown is required, hold the button depressed for four seconds or more.
2	**Display sections**	
3	**PLAY/REC indicator for DVD 1 drive**	Lights to indicate operating state of DVD1 drive. Appears green during PLAY mode, and orange during REC mode.
4	**DISC indicator for DVD 1 drive**	Located to the right side of DVD1, this indicator light (orange) to indicate that a disc is loaded. **(*1)**
5	**EJECT button (⏏) for DVD 1 drive**	Press to open/close DVD1 disc tray. The **DISC** indicator flashes from the time the button is pressed until the disc tray closes fully.
6	**DVD1, DVD2, HDD (Hard disk Drive) indicators**	These indicators light to show which drive has been selected with the **DRIVE SELECT** button (the indicator for the selected drive lights green).
7	**PREVIEW button**	When this button is pressed with the unit in the idling condition, a preview image/sound of the selected input (following encode and decode processing) is supplied to all output connectors except DV; when the button is pressed again, the unit returns to idling condition.
8	**DRIVE SELECT button**	Use to select the playback source and destination drive for recording. The selection changes in the order **HDD** (Hard disk Drive)→**DVD1**→**DVD2** →**DVD1&2**. When a drive is selected, the corresponding indicator lights (green). When **DVD1&2** is selected, **DVD1** is designated as the playback source.
9	**STOP button (■)**	Functions to stop recording or playback. Until all internal operations are completed, the indicator flashes (white), and when fully completed, the unit returns to the idling condition and the indicator lights (white). Also, during idle condition, pressing the **STOP** button while holding down the **CURSOR** (bottom pointing arrow) button turns progressive encoding ON/OFF. **(*2)** To switch the selected TV system format (NTSC/PAL), hold the **CURSOR** (upward pointing arrow) button depressed and press the **STOP** button.

No.	Name	Function
10	**PLAY button (▶)**	When this button is pressed, playback begins from selected source (DVD drive or HDD), and the indicator lights (white). When **HDD** is designated as the recording destination and time shift playback has been set, this button responds even during recording, and initiates playback from the recording start.
11	**PAUSE button (❚❚)**	When pressed, recording or playback is temporarily interrupted and the indicator lights (white). During recording, allows automatic setting of chapters. To resume recording from the recording pause mode, press the **REC** button.
12	**REC button (●)**	When pressed, recording begins to the selected recording destination (drive or project), and the indicator lights (white).
13	**PLAY/REC indicator for DVD 2 drive**	Lights to indicate operating state of DVD2 drive. Appears green during PLAY mode, and orange during REC mode.
14	**DISC indicator for DVD 2 drive**	Located to the right side of DVD2, this indicator light (orange) to indicate that a disc is loaded. (***1**)
15	**EJECT button (⏏) for DVD 2 drive**	Press to open/close DVD2 disc tray. The **DISC** indicator flashes from the time the button is pressed until the disc tray closes fully.
16	**MOUSE/KEYBOARD connectors**	Allows connection of a USB mouse, USB keyboard and USB HDD to the unit. **(*3)**
17	**STEP FWD button (❙❙▶)**	During normal playback, press for frame advance. Hold depressed for slow motion playback; during slow mode, press again to increase playback speed. **(*5)**
18	**STEP REV button (◀❙❙)**	During normal playback, press for frame playback in reverse direction. Hold depressed for slow motion playback; during slow mode, press to decrease playback speed. **(*5)**
19	**SCAN/SKIP FWD button (▶▶/▶▶❙)**	During playback, press to move to next title or chapter. Hold depressed to initiate scan mode.
20	**SCAN/SKIP REV button (◀◀/❙◀◀)**	During playback, press to move to previous title or chapter. Hold depressed to initiate scan mode.
21	**ENTER button**	Press to select function menu items and commands, and to input DVD menu items and commands (during DVD playback). During recording, press to insert chapter marks at optional locations.
22	**CURSOR buttons (▲, ▶, ▼, ◀)**	Use when selecting function menu items, and for DVD menu control (during DVD playback).
23	**Filter cover (2)**	These are ventilation ports provided to prevent excessive heating of internal parts. During installation and operation, do not allow these ports to become blocked, since malfunctions may result. * Air filters are installed inside these filter covers, and must be removed and replaced at regular intervals. Continuing to use the unit with clogged filters may result in malfunction. Consult the appended instruction sheet **"Air Filter Replacement Instructions and Precautions"**.
24	**FUNCTION button (*4)**	Press to enable and disable the monitor's on-screen function menu display (default setting: DISABLED). When disabled, the unit returns to idling condition.
25	**DISPLAY button**	Press to turn on-screen display (OSD) ON/OFF (default setting: OFF). This button does not operate when on-screen function display is set to DISABLED.
26	**Remote control sensor**	Receives signals from the remote control unit. Do not allow this part to be blocked by other objects.
27	**VOLUME knob**	Use to adjust output level to the headphones jack.
28	**PHONES jack**	Use to connect headphones.

***1** A disc created on the PRV-LX10 or PRV-LX1 that contains many titles may take dozens of seconds to recognize when loaded. The DISC indicator flashes and the disc recording and playback cannot be started during disc recognition.

***2** Progressive is supported only during NTSC output.

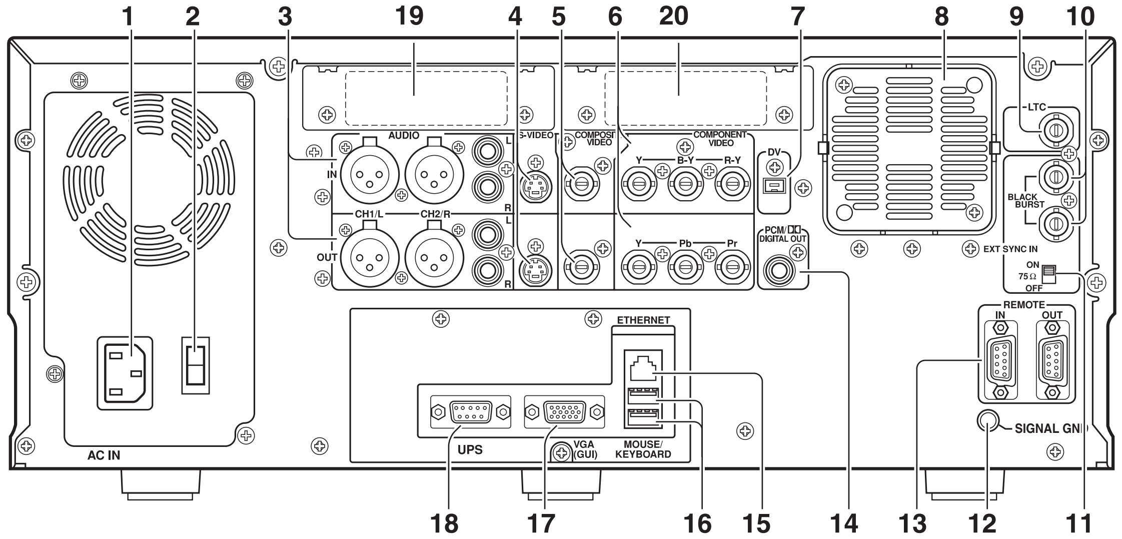
- Connect to progressive-scan TV monitor. Non-progressive monitors will not produce correct playback.
- When progressive is set to ON, no video is output to any output connectors except the component output.

***3** Functionality of connected devices is not guaranteed. If USB mouse and keyboard operation is unstable, try disconnecting and reconnecting the USB connector. If a USB hard disk drive is not recognized, or if operation is unstable, change to a hub supporting USB 2.0. If operation continues to be erratic, inquire your Pioneer dealer or one of the service centers listed at the end of this manual.

***4** This operates the same as the remote control unit's **SETUP** button. The **FUNCTION** button operates only in the idling condition.

***5** When performing reverse slow-motion playback with progressive output (NTSC only), the speed cannot be changed.

• Rear Panel Facilities



No.	Name	Function
1	**AC IN connector**	Connect to power cord.
2	**Main power switch**	When set to ON, the unit enters standby condition and front panel indicator lights orange.
3	**AUDIO CH1/L CH2/R IN/OUT connectors**	Input/output connectors for analog audio CH1/L CH2/R signals.
4	**S-VIDEO IN/OUT connectors**	Input/output connectors for S-VIDEO video signal. Output is compatible with S2.
5	**COMPOSITE VIDEO IN/OUT connectors**	Input/output connectors for analog composite video signals. Note: Use coaxial cables (impedance: 75-ohm) to connect with BNC plugs.
6	**COMPONENT VIDEO IN/OUT connectors**	Input/output connectors for analog component video signals. **(*1)** Note: Use coaxial cables (impedance: 75-ohm) to connect with BNC plugs.
7	**DV connector (*6)**	Connect to DV connector of professional use VTR or similar component.
8	**Fan motor**	Fan motor for cooling internal parts.
9	**LTC connector (*2)**	Connector for obtaining time code from VHS, VTR, etc. Note: Use a coaxial cable (impedance: 75-ohm) to connect with BNC plugs.
10	**EXT SYNC IN and through Output connector**	Use for connecting external sync signal, and for pass-through signals. Note: Use coaxial cables (impedance: 75-ohm) to connect with BNC plugs.
11	**Terminate switch**	Use to terminate sync signal. Set to ON when used alone or when connected to a terminating unit.
12	**SIGNAL GND terminal**	Ground terminal for signals. When using the unit in environments exposed to high levels of electronic noise, malfunctions may occur to mouse and other control devices. In such cases, connect a ground wire between the components to reduce the noise. This is not an electric safety ground.
13	**REMOTE IN/OUT connectors**	RS-422A compatible external control connector. The protocol is compatible with SONY format. **(*3)**
14	**PCM/DD DIGITAL OUT connector**	Digital audio output connector. Note: Use a coaxial cable (impedance: 75-ohm) to connect with RCA in plugs.
15	**ETHERNET connector**	Use for network connection.
16	**MOUSE/KEYBOARD connectors**	Allows connection of a USB mouse, USB keyboard and USB HDD to the unit. **(*4)**
17	**VGA (GUI) connector**	Connect to VGA monitor for expanded operation. **(*5)**
18	**UPS connector**	Connect when using UPS.
19	**Expansion slot 1**	Provided to allow installation of the optional SDI AES/EBU input board (PRA-BD11). • Consult your dealer regarding installation.
20	**Expansion slot 2**	Provided to allow installation of the optional SDI AES/EBU output board (PRA-BD12). • Consult your dealer regarding installation.

***1** Inputs are compatible with signal levels for both BETA and SMPTE (NTSC only). However, since outputs are based on DVD format, they differ from BETA and SMPTE levels. As a result, outputs should be used only for monitoring.

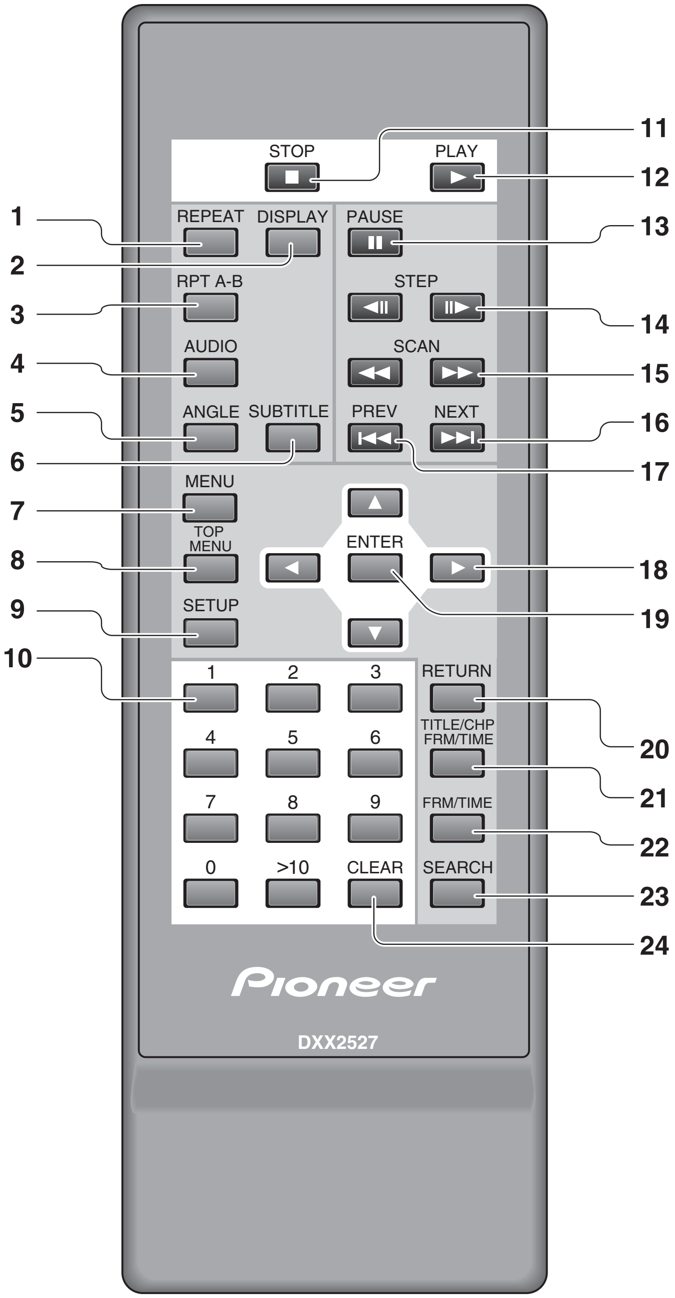
***2** LTC is not supported in drop frame mode.

***3** SONY is a trademark of Sony Corporation. Frame precision is not guaranteed when this unit is used as a playback unit for editing. This component does not support control from an editing machine.

***4** Functionality of connected devices is not guaranteed. If a USB hard disk drive is not recognized, or if operation is unstable, change to a hub supporting USB 2.0. If USB mouse and keyboard operation is unstable, try disconnecting and reconnecting the USB connector. If operation continues to be erratic, inquire your Pioneer dealer or one of the service centers listed at the end of this manual.

***5** The VGA output connector is provided for future expansion use; at present, the connector does not support the output of GUI display signals Whenever connecting a DV cable to the rear panel DV connector, be sure to attach the accessory ferrite core to the cable.

• Remote control unit


STOP
PLAY
REPEAT
DISPLAY
PAUSE
RPT A-B
STEP
AUDIO
SCAN
ANGLE
SUBTITLE
PREV
NEXT
MENU
TOP MENU
ENTER
SETUP
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TITLE/CHP FRM/TIME
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No.	Name
1	**REPEAT** button
2	**DISPLAY** button
3	**RPT A-B** button (repeat playback between two points)
4	**AUDIO** select button
5	**ANGLE** button
6	**SUBTITLE** button
7	**MENU** button
8	**TOP MENU** button
9	**SETUP** menu button ***1**
10	Number buttons (**0–9**, **>10**)
11	**STOP** button (■)
12	**PLAY** button (►)
13	**PAUSE** button (**II**)
14	**STEP** / Slow buttons (◄II , II►)
15	**SCAN** (fast forward/reverse) buttons (◄◄, ►►)
16	Chapter skip **NEXT** button (►►I)
17	Chapter skip **PREV** button (I◄◄)
18	Cursor buttons (▲, ►, ▼, ◄)
19	**ENTER** button
20	**RETURN** button
21	Title, chapter, frame, time button (**TITLE**/**CHP**/**FRM**/**TIME**)
22	Frame/time button (**FRM**/**TIME**)
23	**SEARCH** button
24	**CLEAR** button

***1** This key operates the same as the FUNCTION button on the main unit.

■ Jigs list

JIG No.	JIG Name	Remarks
GGF1067	Service Remote control unit	Test mode operated
GGF1348	DVD Interface jig	Rewriting of GUID
GGV1139	DVD-R	
GGV1050	DVD-RW	
GGV1176	HDD Copy Disc for PRV-LX1	HDD Replacement
GGV1177	OS Install Disc for PRV-LX1	
GGV1234	Program Install Disc for PRV-LX1(Ver.3.01)	
	Frequency counter	Clock adjustment
DEX1008	Forced ejection pin	Open the tray for Drive1 and Drive2
GEM1004	Cleaning liquid	Pickup lenses
GED-008	Cleaning paper	Pickup lenses and Fans